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## Educational News and Editorial Comment

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### A SIGNIFICANT SCHOOL SURVEY

**I**N 1939 a survey was made of the St. Louis public schools by the Division of Field Studies, Institute of Educational Research of Teachers College, Columbia University, under the direction of George D. Strayer and N. L. Engelhardt. The survey report aroused great interest and controversy. Ultimately a general Committee of Eighty, representing the Instruction Department of St. Louis, was appointed to review those chapters and volumes of the survey which have to do with the curriculum and teaching, and to make recommendations. Recently the Committee of Eighty, under the chairmanship of F. M. Underwood, assistant superintendent of the St. Louis schools, published a report entitled *Approved Recommendations of the St. Louis School Survey*. It conceives these recommendations as providing "a program of improvement in instructional and administrative practices to be worked out during the next ten years."

The committee's position on the autonomy of individual schools in the St. Louis system is indicated by the following statement:

In the main we support this philosophy [of the survey staff] but prefer to leave the practices and procedures employed in carrying out the philosophy to the local school authorities. This does not permit an individual principal, teacher, or group of teachers to adopt any philosophy they like. We do not feel local autonomy should extend this far. We feel that the philosophy adopted or approved by a substantial majority should be carried out by all.

In support of this position Superintendent Homer W. Anderson, at the beginning of the school year 1940-41, appointed a committee composed of fourteen principals, teachers, and supervisors to study and report upon the purposes of education in the St. Louis schools. A citizens' committee of consultants and advisers was also formed. The report of these committees has recently been released under the title *The Purposes of Education in the Public Schools of St. Louis: A Statement of Fundamental Philosophy Underlying the Curriculum*.

The Committee of Eighty carefully examined every recommendation of the survey staff, and those which were approved by vote are presented by the committee in its recent report. The committee did not approve all the recommendations of the survey, nor did it accept all the statements of fact alleged by the survey.

We have, on several occasions, voted to approve unanimously a recommendation, though certain members were dissatisfied with the way in which the recommendation was worded. However, as interpreted in the body of the report, the meaning was clarified and the recommendation adopted. We are not so much concerned with the wording as we are with the intended meaning. . . .

It is the judgment of your committee that the survey report errs in some of its statements describing what they term typical or majority practice in the schools.

Some of the major recommendations relating to the secondary schools will be of interest to readers of the *School Review*. The committee accepts the proposal, which has long been advocated by President Hutchins, Professor Koos, and others at the University of Chicago, providing for a reorganization of education on the 6-4-4 plan. The primary purpose of the middle school unit, including Grades VII through X, should be "to provide more adequate opportunities for children of early adolescence to develop special interests and abilities and to acquire further understandings needed for effective participation in social life."

These grades should provide a varied program with no distinction between types of programs and the value of various subjects, so that children may be free to explore special interests and to determine the nature of opportunities they will later select in the upper school. . . . To provide the guidance so particularly needed by children in these grades, the program should be correlated with community life, and the activities and problems of the community should serve as sources of educational enterprises involving the co-operation of pupils, teachers, and parents.

The upper school which would consist of Grades XI through XIV should seek to meet the needs of all youth of St. Louis, either in the schools devoted to general education or in the vocational schools. In the upper school for general education some of its pupils will later attend college, some will desire later vocational training, and for some this period will mark the completion of formal schooling. For all groups, continued general education is a requisite, and should be provided through a unified program developed around social and individual problems with adequate provision for special interests.

Although the vote was not unanimous, the committee went on record as opposed to segregated grouping. "Practices which create breaks in the school program so as to make general education selective and severely limited should be abolished." Among these practices the committee named formal graduation from elementary schools and multiple lists of eighth-grade graduates, restrictions on the selection of nonacademic subjects in the high schools, distinctions between high-school diplomas and certificates, and "throughout the schools, emphasis on intelligence quotients and achievement measures as criteria of classification and progress." This sweeping recommendation has far-reaching implications.

The committee also strongly approved the recommendation for a close relation between the classroom and life outside the school:

The total program of general education must include provisions for all types of desirable experiences in the various areas of living. St. Louis schools will provide an optimum kind of general education when for all groups a variety of educative experience replaces excessive reliance on textbook reading and recitations.

With reference to education for citizenship, the committee indorsed, by a vote of seventy-one to two, recommendations such as the following:

The community life itself should be the source of many of the problems given consideration by children in regular school work. . . . education for citizenship is not the exclusive responsibility of the teacher of social science. . . . The school must be a unit in its efforts for better citizenship. . . .

Let children and youth work at enterprises—intellectual, aesthetic, manipulative, and constructional—that give opportunity for purposeful activity in planning, execution, and evaluation; that require co-operation and sharing; that demand tolerance, consideration, and friendliness; that call for perseverance, diligence, and responsibility, respect for truth and the inexorableness of facts. Let these enterprises grow out of the manifest interests and desires of the learn-

ers as they are set by the circumstances of their physical and social surroundings. Let these be centered in the basic aspects of living with which all persons must deal, personal, social, economic, and civic. Finally, let them be carried on in such a way as to permit contact and harmony with reality, increasing self-direction, and a fair balance between success and failure.

With regard to the teaching of science, the committee approved the survey recommendations:

That science teachers be encouraged to organize for the purpose of investigating science education and for the purpose of exchanging viewpoints and stimulating leadership and research work in science-education problems; and that through their organization they be encouraged to work particularly in problems of curriculum, not only with science teachers, but also with teachers of other subjects.

That there be an increase in emphasis on correlation of the sciences and on a continuity of courses from the grade school through the high school . . . .

That experimentation in the classroom in methods of teaching be encouraged.

In the field of English the committee approved a number of recommendations, including the following:

(1) Make all work more lifelike, less conventional. (2) Spend more time in reading and in using language; spend less in learning about literature and language. (3) Substitute extensive reading for much of the detailed factual work now carried on. (4) Give much more guidance in magazine and newspaper reading and in movie and radio habits. (5) Make work more individual; suit it to needs of slow-learning, nonliterary pupils, and to the superior learner and gifted pupil, as well as to the average student. (6) Let teachers of all subjects be teachers of good usage and of the language arts, giving appropriate attention to the oral language used in their classes and the written language and general effectiveness of all reports, recitations, and so on, employed in teaching their subjects.

It seems significant to the writer that the survey report does not recommend emphasis on the development of critical reading and "close interpretation." The importance of semantics as part of the English program and the significance of careful, critical reading have been brought out in recent reports on the English curriculum. It is hard to understand the failure of the St. Louis report to consider this type of training.

The recommendations regarding the teaching of mathematics are also disappointing in their failure to deal with major issues in the mathematics curriculum. They mention supplementary material, exhibits, and clubs. The committee does recommend, however, that

"certain departments or groups of teachers should be permitted to outline and carry on, under supervision, certain experiments that seem timely concerning the organization of materials for teaching purposes and the actual learning process. Mistakes may be made, but there is hope for real progress in this way."

With reference to vocational education, the committee approved recommendations among which were the following:

St. Louis, in modifying and extending its program of occupational adjustment, should recognize that the field to be served is as comprehensive as is the gamut of work itself, both in terms of the work to be done and the kinds of men and women who work. . . . The question to be asked is: "Can the schools meet the needs of this occupation or this group of youth or adults better than any other agency of the community?" If the answer is yes, the schools should do their utmost to provide ways and means.

All agencies in the community that have or should have a vital interest in the occupational adjustment of youth and adults should be co-ordinated in a Central Advisory Council on Occupational Adjustment. Such a council should have as members representatives of business, industry, the schools, welfare agencies, municipal departments, the State and Federal Employment Service, the National Youth Administration, employers, organized labor, the Chamber of Commerce, parents, and quite possibly mature students of both the day and evening schools. Its function should be to advise the school administration concerning any aspects of vocational education on which its help might be sought, to initiate or support projects looking toward more adequate programs and facilities, and to interpret the occupational-adjustment program of the schools to the general public. . . .

There is needed in St. Louis a comprehensive continuing survey of occupational conditions and trends, including supply and demand of workers, upon which future developments in the vocational-education program may be based. . . . One function of the Advisory Council mentioned above should be to stimulate, sponsor, and possibly conduct such studies. Not only is this type of information essential for wise planning of the vocational-education program; it is equally important for realistic vocational guidance and effective placement.

The committee also approved of the recommendations that an officer be added to the central staff whose responsibility should be the organization and supervision of a sound program of vocational guidance throughout the secondary schools; that specific trade or industrial training be delayed until pupils reach the minimum age of seventeen; and that some system of co-operative part-time training be instituted, particularly in the distributive occupations.

The committee also took an advanced position with reference to the function of business education. It concurred in the following recommendation:

The program should deal with the common knowledges which most people should possess in order to utilize more intelligently the services of business institutions in the community.

The program should provide an opportunity for everyone to become acquainted with the functions of business and industry and their relations to government and to social welfare.

The program should serve as one of the means of guiding the pupil into an occupational choice. The actual training for the occupation may be begun during the high-school course, or it may be deferred until after high-school graduation, depending upon employment conditions, amount of training required for the occupation, and the age and maturity of the individual student.

The program should provide opportunities for those who will enter business and industry immediately upon completion of the high-school program as workers in small business enterprises where a high degree of commercial skill in the usual commercial subjects of shorthand, typewriting, bookkeeping, and selling is not essential, but where a knowledge of certain of the subjects from the point of view of personal use is most desirable.

The program should provide for specialization and training of a high degree for positions that are available to the young people of the community. This phase of the program should be deferred, to a great extent if not entirely, to a post-high-school or thirteenth and fourteenth year of training in the vocational schools.

The committee approved unanimously the recommendation to develop experimentally a core program in the secondary schools:

Each secondary school should be considered a unique unit free to function in the best interest of the pupils, parents, teachers, and the larger community which it serves. To promote this end, all pupils should have one teacher for at least three standard periods per day, for only in this way can the teacher come to know them as individual personalities. This means that some teachers, who may be called core teachers, would have one group of pupils for three hours instead of three groups for one hour each. Within this longer period of time the teacher, pupils, and their parents should plan the problems and activities to be selected for study. Many of these problems are already known to teachers, and many more will be revealed by pupils under the new management. . . . Emphasis should be placed upon helping each pupil to grow in critical-mindedness and to deal with all problems in the light of more and more pertinent facts. This will mature his thinking and give a continuity to subsequent problems and experiences which cannot be achieved through a program stressing facts and skills.

Improvement in thinking for pupils is a changing, growing affair, is personal to each individual, and is little affected by imposed perfected systems of adult thinking. Each pupil may work his system out for himself within the democratic process.

The remaining time of the pupil each day should be given to a program which he would work out with his core teacher. Such a program could be carried on within the present high-school periods, if necessary. No fixed subjects or activities would be required, but all pupil programs would be of equal value. Some pupils might be studying the geology of the surrounding country; others might be learning how to write short stories; some might be exploring the possibilities of printing as a vocation; while others might be learning more about books for the enjoyment and pleasure of reading them. There would be no units and credits, but each pupil should be expected to carry a program for a full day. There would be no failures and promotions, but each pupil would be given every opportunity and aid in making each year a significant contribution to present and future living. There would be no extra-curriculum activities, as the educational value of all activities will be recognized. With each pupil working in areas that interest him, greater quality and quantity of achievement would be expected so that home work could be abolished along with all other artificial grades or incentives to study. Removal of pressure to cover ground or the drive to read, recite, and test would free teachers to know the pupils better and thus give them the opportunity to become understanding, sympathetic individuals. . . .

A core teacher with his pupils and their parents and the other teachers working in the total program of each pupil of a core group constitute a primary unit. These persons should work, study, think, and plan together. Parents should not only be regular members of such planning groups but should at times become leaders when they can contribute significant experiences on any problem under consideration. Since many parents may be at work during the day, many of these core-planning meetings may be held in the evening while a corresponding unit of day-school time may be used by pupils and teachers for excursions, library research, and interviews with individuals in the community on matters on which they can give reliable information.

Finally the committee approved recommendations regarding the steps by which this curriculum improvement might be brought about:

1. All efforts toward curriculum improvement must be postulated on the fact that the teacher and the pupils are curriculum-makers. All plans for improvement of instruction and curriculum must be based on teacher development and growth.

2. It is recommended that curriculum development in St. Louis proceed in this fourfold manner:

*a) Teacher development.*—A widespread program of teacher stimulation and growth should be undertaken, involving intensive study of important curriculum problems, participation in committee work, writing curriculum materials, initiation of significant innovations in teaching practices, use of new curriculum materials, and a myriad of other activities which encourage a rethinking of basic concepts and from which new insights and points of view may evolve. These activities should be democratically carried out through the co-operative action of teachers.

*b) Survey and study of the community and educational needs of St Louis by teachers and staff members.*—The educational program should be predicated on the needs of pupils living in a community situation. This necessitates a continuous survey of community factors, the present social scene, and pupil interests and needs.

*c) Individual school and teacher experimentation.*—On the basis of group study of curriculum problems and of surveys of community and pupil needs, individual schools and teachers should be encouraged to initiate promising experiments and practices in the reorganization of instruction and curriculum. All such undertakings should be carefully guided and directed, should conform to sound principles and acceptable points of view, and should be evaluated continuously.

*d) Preparation of curriculum materials.*—Curriculum development is a continuous process. A wide variety of new materials should constantly be prepared to aid in carrying on this process. These materials should be designed primarily to guide teachers in carrying forward learning activities. They should be rich in suggestions and ideas for teachers and not be a rigid outline of subject content. They should suggest a variety of activities and content from which teachers might choose in developing units of work. . . . .

3. St. Louis should at the earliest opportunity establish a curriculum laboratory, in the broad sense of that term. . . . .

4. An adequate program of measurement and evaluation should be formulated. This work should be organized on a much broader basis than the conventional testing program. Primarily, its purpose should be the evaluation of all instructional and curriculum practices in the schools. Evaluation must be made in terms of sound educational concepts and broad purposes, rather than as a comparison of children's knowledge of isolated facts with some norm or standard. The bureau having responsibility for this aspect of curriculum development should evaluate traditional practices as well as experimental practices initiated by schools.

If these recommendations made by the survey staff and approved by the Committee of Eighty are followed, St. Louis will have instituted the most far-reaching program of curriculum revision ever to have been undertaken in a large city.

### SUGGESTIONS TO LAYMEN FOR DEFENDING DEMOCRACY THROUGH THE SCHOOL

THE Council for Democracy is an interesting outgrowth of these troubled times. Headed by Raymond Gram Swing and a board which includes public-spirited national leaders, it prepares brief pamphlets on critical problems of the day. The pamphlets are prepared through a Committee of Correspondence composed of Ernest Angell, Frederic P. Bartlett, L. M. Birkhead, Abraham Flexner, Carl J. Friedrich, Robert Littell, Walter Millis, and Maxwell Stewart. The committee seeks to tap the ablest thinking on urgent issues and to present the results in an interesting way to thoughtful citizens, who are, in the last analysis, the policy-makers of our democracy.

The Council for Democracy has recently published two pamphlets of value to the schools. The first of these, *America's Free Schools*, warns against the efforts of pressure groups to gain control of the schools and against economy drives which threaten the American school system—"our stake in tomorrow." The important role that education must play in the future of democracy is emphasized throughout this report.

The conclusions are not new to professional educators, but this pamphlet is prepared for laymen and presents in graphic and dramatic fashion the significance of freedom in the schools. It advocates that teachers be allowed the maximum of responsibility in deciding what shall and what shall not be taught in the schools. Teachers are best fitted for this direction of activities because "their social attitudes have been demonstrated to lie midway between the radical and conservative extremes." They can, therefore, "be counted on to take a position as close as possible to the interests of the 'community as a whole.'" On the subject of indiscriminate economy drives the Council declares:

One of the most pernicious effects of the economy effort has been the deterioration of textbook facilities. Cuts during the past decade have produced acute shortages of books in some regions. Too many obsolete texts are in use. . . . In too many schools there are wholly inadequate libraries, or none at all.

One of the chapters is entitled "Who Is Subversive?" After presenting the conflicting points of view of various pressure groups and

after outlining the significance of these issues to the effective conduct of the school, the Council concludes:

In any case, if these are dangers of subversion, it is important to point out that it is the times in which we live that are primarily responsible. Perhaps the times are also such as to provide tremendous opportunities for a clarification of purposes and a re-examination of our means of achieving them. In miniature, this was illustrated by the fact that the opinions on subversion opened up the question of academic freedom and the purposes of the schools in a time of change.

The chapter which follows is entitled "The Uses of Academic Freedom." Presenting the issues in simple, clear-cut fashion, the Council sums up the problem of academic freedom as a public responsibility:

In community-school co-operation must lie the final recommendation for the maintenance of a free, democratic school system. . . . Community-school groups are particularly qualified to develop a more adequate general understanding of the schools. This can be done through meetings, press releases, local radio programs, neighborhood discussion groups, special lectures, movies, dramatizations, and exhibits. Resourceful committees can develop a positive interest, understanding, and pride in the schools on the part of the community which will be the surest—in fact the only—guaranty that the control of education will be exercised in the interest of the community as a whole.

The pamphlet concludes with a chapter on "The Schools and the Future." The Council takes the position:

When all is said and done, it is not history or principles that settle the issue. What people do about the matter is the important thing. The battle for free schools will not be won in the classroom or even in the educational convention; neither the professor nor the principal will carry the burden of the fight; it will be the victory of the citizens in the local community whose courage and insight will help the schools to play their part in bringing democracy through its time of trouble.

At the present time, when freedom in the schools is an acute issue, this pamphlet will be very useful for school-board members, for study groups of parent-teachers' associations, and for other citizens concerned about the schools. It includes a selected bibliography and a suggested program of further reading for the more interested members of the lay groups. Among the contributors to the pamphlet were Charles H. Judd, John W. Studebaker, Henry W. Holmes, Lyman Bryson, Wesley C. Mitchell, Frederick L. Redefer, and G. L. Max-

well. The booklet may be obtained for ten cents from the Council for Democracy, 285 Madison Avenue, New York City.

The second pamphlet which the Council has recently published is entitled *Defense on Main Street*. It catalogues and describes constructive steps which ordinary citizens may take in improving their communities and the nation and thus in defending democracy. The purpose behind the pamphlet is well stated in the introduction by Raymond Gram Swing, head of the Council:

The danger to democracy is real in the world of today, and the sentiments that pour from almost all Americans in loyalty to democracy are real. But somewhere in the equation, between danger and loyal sentiments, is something which confuses the issue. Many loyal sentiments, as they flood into expression, are not quite solid and not quite persuasive. There always is a minority listening to the praise of democracy with suspicion and skepticism.

Many Americans look at their country and find it full of defects. To many the door of opportunity is closed. To not a few the civil equalities are denied. They see that even some defenders of democracy are silent about the inadequacies of American life. They say: "Democracy has failed to bring a good life to a substantial section of society. It is time to try something else."

The misunderstanding here is as to the nature of democracy. Democracy is not the end product, but the means of providing the end product. The end product in the United States is indeed imperfect and incomplete, though much in it is superb. But it is not democracy itself. One can call the social order in the United States democratic, in that it came into being through democratic processes, but it is not democracy. Democracy is political freedom. . . .

But if democracy, the freedom to create a good social order, is to have the defense of all, the social order must be improved. That is obvious. One cannot expect individuals who are deprived of the privileges bestowed upon others to defend freedom which they know to have been poorly used. So the defense of democracy is not only against a danger which confronts it from without, but also from its internal weakness.

Many Americans have recognized this dual nature of the democratic crisis. As individuals they feel unable to meet the world-peril. As individuals they also are all too aware that their strength is unable to rebuild the social structure, to cure unemployment, to raise the standard of living for millions, to extend civil liberties for those deprived of them, to overcome racial prejudice, and to silence intolerance. They would gladly pay a high price to effect any of these changes. But they feel that their own powers are not enough. America is too big for them.

This is an illusion, understandably one, but an illusion. The possibility of action is present to every citizen. . . .

The nation is the sum of its parts, and in each part the individual has his range of power if he will only exercise it. It is folly in a democracy for individuals

to wait for leadership, without supplying the personal initiative within their own range. In township, village, town and city, problems are crying out for attention and intelligence. These are America. In each unit are Americans who are not capable defenders because that unit has been less intelligently governed than it could be. In each unit is a problem that requires study and the collective action of individuals.

This booklet is an attempt to catalogue some of the actions open to Americans who care about the improvement of their society through the democratic process. It is compiled in the sense that an American who makes a contribution to his neighborhood makes it to the nation. This is the only internal defense which democracy can be given. It is stronger than sentiments, however loyal. It is stronger than weapons. Participation is the life of democracy. Without it, it dies.

Each section of the pamphlet suggests types of community action. These are graphically presented in the form of concrete cases of individual action. Among other steps, the pamphlet advocates community co-ordinating councils; central volunteer bureaus; citizenship training for adults; leadership training programs; community studies of employment, consumer problems, nutrition and health, housing needs, recreation, and school facilities.

School people will find the guidebook helpful both as a source of suggestions relevant to the school program and as a pamphlet to recommend to lay groups and interested citizens in the community. This bulletin, which was prepared with the aid of the National Federation of Business and Professional Women's Clubs, may be obtained from the Council for Democracy for twenty-five cents.

#### AMERICA IN THE INTERNATIONAL SCENE

**I**N THE international crisis which faces the United States, teachers of social studies have a heavy responsibility. "Isolation," "intervention," "neutrality," "reciprocal trade," "total defense"—these are terms which are met over and over again by pupils, teachers, and administrators. Even if the schools should try to avoid the issues, they could not do so. Teachers, however, do not find it easy to meet the challenges which newspapers, radio, and movies throw into the classroom. To help in meeting this need, the American Council on Education last year established the Committee on Materials for Teachers in International Relations, composed of outstanding social

scientists with Phillips Bradley, of Queens College, as chairman, and charged the committee with preparing impartial, authentic, and useful material which might be integrated into the curriculum. Two pamphlets have recently been issued.

*The Teacher and International Relations* is a twenty-four-page document which outlines a point of view for teachers in this country during the crisis and suggests methods which may aid them in doing a better job. The committee believes that, "if we are to cut below the present confusions in American opinion, we must design our program of training for citizenship to that end." It discusses events and policies bearing on the country's general welfare and outlines questions which must be answered by the citizenry.

The necessity of decision presents both opportunity and responsibility to American teachers. We as teachers have the opportunity to provide our students and our communities with a clear and searching appraisal of the issues that confront us as a nation. Our responsibility is to present these issues fairly and objectively so that American citizens of today and tomorrow will better understand the origins and the implications of the decisions they must make.

The committee then goes on to discuss the method by which these problems can be treated. It concludes:

It is all too easy to let the facts speak for themselves, to avoid the difficult but essential task of giving meaning to events. It is only as we relate events to some concept of the purposes of democracy that the data themselves take on significance. Here the inherent nature of objectivity emerges. In our teaching it is not the objectivity of indifference, but of critical analysis, that is required. To know "all the facts" is certainly a prerequisite to understanding. But the pattern in which the facts are placed is even more relevant to objective judgment. . . .

The problem which we as teachers confront is not to sterilize emotion as a factor of judgment; rather, it is to mobilize emotion for the strengthening of the national will to make democracy more effective. . . .

What are some of the ways open to us?

In the first place, the impacts of international affairs on our domestic life need to be more clearly understood. Here those studies which involve cultural and social as well as economic facts and analyses are important. . . .

Second, some appreciation of the more fundamental unities which bind the peoples of the world together, despite the recurrent clashes which have marked human history, is a significant aspect of the study of international relations for American citizens. The great ideologies, past and present, have been conceived

in universal terms. The Christian conception of world-community, the ideal of a universal empire, the democratic concept of human equality, and the totalitarian standard of universal order and discipline have at least this much in common—that to their advocates political frontiers offer no barrier to their validity. . . . Here is one factor in international relations out of which to construct at least the outlines of a co-operative world-society. . . .

Third, in formalizing a program of study in the field of international relations, objective data provide the soundest ground for judgment. . . .

Finally, making a graphic picture of world-events through a concerted activities program in school and college increases awareness of the significance of international relations for the student and the citizen. . . .

It is well to recall, moreover, that such a program as this can be developed through existing courses of study—both within and outside the social studies.

The pamphlet also includes a brief list of sources on contemporary international relations.

*American Isolation Reconsidered* is a two-hundred-page resource unit, which traces the history of American neutrality from 1793 to 1941 and points out the issues involved in the decisions that we have faced about peace and war in 1812, 1914, and 1941. It includes more than sixty pages of quotations from the original documents related to these issues, beginning with the Neutrality Proclamation of 1793 and running to President Roosevelt's message to Congress in July, 1941. These materials are invaluable to teachers and students in considering the present and future status of American policy. This pamphlet has been prepared primarily for the use of teachers in clarifying their own thinking on the present crisis in American foreign policy. The committee hopes, however, that the text as well as the documents will be found useful in the classrooms of many schools. The book is written simply and clearly and provides an absorbing story of changes in foreign policy. It also includes a selected bibliography and a list of sources for further materials.

Both pamphlets may be obtained from the American Council on Education, 744 Jackson Place, Washington, D.C. The cost is ten cents for *The Teacher and International Relations* and fifty cents for *American Isolation Reconsidered*.

RALPH W. TYLER

## WHO'S WHO FOR DECEMBER

*Writer of the news notes  
and authors of articles  
in the current number*

The news notes in this issue have been prepared by RALPH W. TYLER, professor and chairman of the Department of Education and chief examiner of the Board of Examinations at the University of Chicago. PAUL H. LANDIS, dean of the Graduate School at the State College of Washington, Pullman, Washington, discusses conditions which have made difficult the transition from childhood to adulthood in the fields of economic adjustment, moral adjustment, and marital adjustment and brings out the social implications of the problems faced by youth. CHARLES I. GLICKSBERG, teacher of English at South Side High School, Newark, New Jersey, analyzes current misconceptions of the semantic discipline which must be cleared up before this science can make its maximal contribution to education. ROBERT M. BEAR and HENRY S. ODBERT, assistant professors of psychology at Dartmouth College, on the basis of tests given to Freshmen at their institution, conclude that the insight possessed by the average student into the extent of his own word knowledge is faulty and that teachers in all subject fields should take the responsibility for helping pupils discover inaccuracies in their word knowledge. HENRY L. SLATER, superintendent of the public schools at Turtle Lake, North Dakota, describes the steps taken to initiate a program of vocational guidance and co-operative training in a small high school. J. THOMAS HASTINGS, now research assistant in the Department of Education at the University of Chicago, on leave from a position as teacher in the public schools of Muncie, Indiana, reports an experiment in which six operations were used to measure the vocabulary concepts possessed by pupils in junior high school mathematics. He concludes that no single technique is a sufficient index of the behaviors measured by the others and, on the basis of his findings, draws up a concrete plan of vocabulary testing. JOHN DALE RUSSELL, professor and secretary of the Department of Education; associate dean and dean of students, Division of the Social Sciences, University of Chicago, and DOROTHY T. HAYES, instructor in education and assistant secretary of the Department of Education at the University of Chicago, present a list of fifty-nine selected references on higher education.

*The writers of reviews in the current number* PAUL A. REHMUS, superintendent of the public schools at Lakewood, Ohio. C. T. FEELHAVER, principal of the Fort Dodge High School at Fort Dodge, Iowa. ARDEN FRANDSEN, professor of psychology at the Utah State Agricultural College, Logan, Utah. ELVA A. LYON, director of composition at the University of Louisville. KENNETH J. REHAGE, teacher in the Laboratory Schools at the University of Chicago.

## A SOCIOLOGICAL VIEW OF THE YOUTH PROBLEM

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**C**HRONOLOGICALLY, the youth group is made up of persons sixteen to twenty-four years of age; psychologically, of those terminating a prolonged period of infancy; sociologically, of those who are trying to bridge the gap between dependent childhood and self-sufficient adulthood. Childhood, from a social viewpoint, is that period of life when society, usually the family, assumes full responsibility for one's conduct, support, and guidance; adulthood, the period when the individual is responsible for his own conduct, support, and choices. Youth is the period between these two, when the individual is struggling with the difficult problems of making the transition.

From a physiological standpoint, youth have reached adulthood. They have, in fact, already reached the age at which they could produce offspring, make a living, and assume moral responsibility for their choices if expected by society to do so. They do these things in most societies, and they did them in our frontier society of yesterday. The interesting aspect of the youth problem is that our society does not now find it practical to accept young people into adult social roles under the conditions of modern living.

Three hundred years ago in Western society, the average expectancy of life at birth was less than thirty years as compared with sixty-three years in the United States today.<sup>1</sup> Then one could hardly have spent the first twenty-five years in preparation for adulthood. In primitive society, and even in early American society with its frontier agrarian pattern, childhood merged directly and unconsciously into adulthood. Under such conditions of life it is essential that those who have reached physical maturity find an active adult role as quickly as possible.

<sup>1</sup> Paul H. Landis and Judson T. Landis, *Social Living*, p. 535. Boston: Ginn & Co., 1941 (new edition).

## CONTEMPORARY SOCIOLOGICAL PROBLEMS OF YOUTH

Three difficulties of social transition are paramount in the experience of youth today: the transition to adulthood in the fields of (1) economic adjustment, (2) moral adjustment, and (3) marital adjustment. The thesis of this article is that the trend of modern events has made increasingly difficult the transition of the child to maturity in these fields of personality development. Here is the essence of contemporary youth problems viewed sociologically.

Briefly, what are the problems experienced by youth in making the transition to economic, moral, and marital adulthood, and why have they emerged?

*Problems of the transition to economic maturity.*—The transition to economic maturity has been made difficult by the fact that urban-industrial civilization has tended to remove the child from contact with the realistic work-world of adults. In the farm community it has long been taken for granted that the child obtains as a matter of course, by living and working with his parents, a natural apprenticeship to farming. It is even assumed that without this natural apprenticeship to farming, few can succeed in agriculture.

Isolation from a realistic work-world removes the child not only from contact with its skills and habits but also from the attitudes and life-philosophies centering in work that make up so much of the experience of adulthood. As a consequence, when he finishes school somewhere between sixteen and twenty-four years of age, the youth comes up suddenly, and sometimes shockingly, against the work-world, its reality, and its modes of thought. The only vocation he knows intimately is that of the school teacher. Little wonder that almost 40 per cent of children and youth want professional-technical jobs.<sup>1</sup> The school is rather far removed from the realities of the work-world in activities, motivation, and essential values. Even in urban society the school, with its elaborate curriculum, is so poorly tied into the world of adult work-activity that it does comparatively little to assure the child of an ability to make the transition to economic adulthood normally and naturally.

The American Youth Commission studying 2,216 occupations in

<sup>1</sup> Howard M. Bell, *Youth Tell Their Story*, p. 132. Conducted for the American Youth Commission. Washington: American Council on Education, 1938.

18 industries representative of roughly 70 per cent of American workers found that few jobs require extensive school training, as is seen in Table 1. The Commission also found that on 59 per cent of the jobs normal productivity was reached either without training or within a week or less of training on the job. Of the workers employed, approximately 95 per cent had received their training on the job.<sup>1</sup>

The trend of American urban-industrial culture is further to exclude youth from the work-world. During the decade 1920-30, before the onset of the depression, the percentage of gainfully em-

TABLE 1  
EDUCATIONAL REQUIREMENTS OF 2,216  
OCCUPATIONS IN 18 INDUSTRIES

Educational Requirement	Percentage of Jobs
No education (assumes ability to read, speak, and write English).....	47.1
Some elementary education.....	7.8
Graduation from elementary school .....	12.1
Some high-school education.....	3.8
High-school graduation.....	20.2
Some college education.....	2.5
College graduation.....	6.5

ployed youth sixteen years of age dropped from 40 to 25.<sup>2</sup> During the depression decade the United States Employment Service reported that it had greatest difficulty placing men under twenty-five years of age. Employers want persons with experience.

Finally, the transition to economic adulthood has temporarily been made especially critical by the fact that important population changes have stranded this generation of youths occupationally. Because the nation reached its maximum number of births during the years 1921-24, more youth have reached working age in the United States during 1939-42 than at any previous time in the nation's history, and more have reached this age than will come to maturity at any time during the next two decades at least. Approx-

<sup>1</sup> Howard M. Bell, *Matching Youth and Jobs*, pp. 56-60. Prepared for the American Youth Commission. Washington: American Council on Education, 1940.

<sup>2</sup> *Ibid.*, p. 101.

mately two and a half million persons a year reach the working age—a number which is about a million in excess of the people passing working age or dying annually during the years 1939-45.<sup>1</sup> In other words, if all the youth reaching eighteen years of age were to obtain employment, a million new jobs would have to be created each year during the years 1939-45. Actually, if all the boys coming of working age found jobs, a great many of the girls would be taken care of by marriage. Probably three-quarters of a million jobs would do. In 1930 the surplus of farm boys with no farms available for them was 201,000;<sup>2</sup> that is, this many more reached the working age than the number of farmers dying or passing the age of sixty-five.

This situation will change by 1955. The excess of all youth reaching the working age over those dropping out of the labor market will decrease to approximately 300,000 per year—or one-third of the present excess.<sup>3</sup>

All evidence supports the thesis advanced—that difficulties of growing up to the status of self-supporting adulthood have become enormous.

*Problems of the transition to moral maturity.*—Let us turn briefly to a consideration of difficulties involved in making the transition to moral maturity. The writer is thinking here of moral maturity, not in any narrow sense, but rather in the sense of the child's reaching a point in his development at which he conforms to social regulations and responds to society's control devices as a mature adult individual must do. If he makes this transition from childhood to adulthood, he becomes the responsible adult—the respected, law-abiding citizen; if he fails, he becomes the delinquent, criminal, misfit, neurotic, or rebellious individual.

In static societies, with integrated primary-group ties, but one set of moral definitions is held by family, neighborhood, and community. The child absorbs these as a matter of course and has little chance to borrow outside patterns. To a person who knows but one

<sup>1</sup> T. J. Woofter, Jr., "The Future Working Population," *Rural Sociology*, IV (September, 1939), 275-82.

<sup>2</sup> David Cushman Coyle, *Rural Youth*, p. 8. National Youth Administration, Social Problems, No. 2. Washington: Government Printing Office, 1939.

<sup>3</sup> T. J. Woofter, Jr., *op. cit.*, p. 277.

way of life, that way is right. The child in static societies faces few problems of moral choice; for as long as the elders live, they make the decisions. By the time they die, the youth has children of his own and has, by virtue of unconsciously acquired habits, himself become a conserver of tradition. Morals change little throughout the centuries. Except for an occasional nonconformist who finds the pattern incompatible, problems of achieving moral adulthood do not exist.<sup>1</sup>

Urban society today, and to an extent our mobile rural society, introduce the child to a world of many moral codes. The simple, positive definitions of two or three generations ago ("That's wicked." "This is right." "That is wrong.") no longer exist. Parents and teachers themselves have often made no moral synthesis of experience in a world where activities have become more complex than established social norms and where social demands have outreached traditional moral codes. I have known parents to tell their sixteen-year-old child, "You'll have to decide that for yourself," when he brought up a perplexing moral issue. They asked him to decide the problem for himself because they had not been able to decide it for themselves.

General observation and the experience of reading more than a thousand autobiographies of college students have convinced the writer that the average youth of today by the time he reaches twenty years of age has made more moral decisions than persons of a generation or two ago made in a lifetime.<sup>2</sup>

Throughout the industrialized world the revolt of youth groups has been characteristic, and youth movements have been common. Most of these movements are revolts against established standards. In America the high school has created a youth group that includes a majority of youths. In many of their informal contacts, these youths function relatively independently of adult supervision and ideologies. Innovations in standards of conduct are numerous, and old codes are replaced by new ones.

As an extreme example one may cite the crime rate, which is higher

<sup>1</sup> For a further discussion of this problem, see Paul H. Landis, *Social Control*, chaps. x-xi. Chicago: J. B. Lippincott Co., 1939.

<sup>2</sup> This point is developed at length in the writer's article, "Points of Stress in Adolescent Morality," *School and Society*, LI (May 11, 1940), 612-16.

for the age group 19-24 than for any other. Over half the nation's crimes are committed by persons under thirty years of age—by those who have failed to make successfully the transition to moral adulthood.<sup>1</sup>

*Problems of marital adjustment.*—The transition to marital adulthood, obviously, is made more difficult by the obstacles in the way of youth's attaining economic and moral adulthood but also by other factors unique to contemporary American culture. The American family has lost many of its functions as an institution for perpetuating the race;<sup>2</sup> in fact its chief objective has become personal happiness. Today it is very much an institution that caters to individual desires rather than to social objectives.

Throughout history, mating has been under the direction of adults—a hired match-maker, parents, the wife's brother or uncle, almost anyone but the individual himself has had something to say about whom he married. The development in the United States of a highly romantic conception of marriage and the family, along with the trends in Western civilization toward increased mobility, has gradually led to the turning-over to young people of the choice of a mate. As a consequence, rather than the choosing of a mate for qualities that are likely to wear well, the family being thus built into a permanent institution, the objective of marriage and the family becomes a romantic holiday.

It is granted that in a more stable rural community adults supervise courting in an informal manner. In fact young people of a neighborhood cannot "go together" very long without knowing what everyone in the community thinks of the match. It is hard to disregard entirely the judgments of adults in such a situation. In urban-industrial society, where the choice of a mate is left almost entirely to the youth, this restraint is not present. This situation is one of many explanations of the facts that the rural family is more durable than the urban family and that approximately one in six of all

<sup>1</sup> Paul H. Landis and Judson T. Landis, *op. cit.*, p. 357.

<sup>2</sup> William F. Ogburn, "The Changing Family," *The Rural Community*, pp. 124-33. Publications of the American Sociological Society, Vol. XXIII. Chicago: Published for the American Sociological Society by the University of Chicago Press, 1929.

marriages contracted in the United States ultimately terminates in the divorce court rather than by death.<sup>1</sup>

All the evidence supports the general thesis that difficulties of making the transition to moral and marital maturity are imposing.

#### IMPLICATIONS FOR SOCIETY

Briefly, what can contemporary society do to meet these problems? Clearly the youth group as a distinct problem group is new, so new that few conscious attempts were made to meet its needs until the period of the great depression. In the face of the crisis of that time two new institutions were devised to meet the problems of youth—both of them entirely unique and admittedly experimental—the Civilian Conservation Corps and the National Youth Administration. Both were designed to provide educational work-activity, and both have been wholeheartedly approved by public opinion. During these years many school systems made adjustments toward a more diversified vocational organization of the curriculum, but even these new institutions and minor changes in the old institutions have not more than begun to cope with the problems faced.

The matter of assisting with the transition to moral maturity has been taken care of in part by moral instruction in the school, and the problem of marital training by courses in sociology and in other practically oriented social studies. Yet, even in these studies the modern curriculum has barely begun to recognize the extreme difficulties which youths face in attaining maturity in a complex social order. If industrial civilization is here to stay, as it undoubtedly is, society must increasingly recognize youth's problems by creating new institutions and revising old ones to make youth a profitable period in the preparation for adult life in a society which has done more to extend life than it has to provide for successful adjustments to living.

<sup>1</sup> W. F. Ogburn, "Divorce: A Menace That Grows," *New York Times Magazine*, LXXVII (December 18, 1927), 1.

## THE EDUCATIONAL IMPLICATIONS OF SEMANTICS

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**S**EMANTICS embraces every branch of human knowledge. It attracts an analysis and integration of culture for the purpose of achieving sanity, both for the individual and for the collectivity. From every science it extracts the essential elements and incorporates them in a functional synthesis that leads to a better understanding of the world—an understanding that will manifest itself in a more efficient (that is, less irrational, wasteful, and contradictory) working of the mind and a more efficient control of the physical and the social environment.

### BASES OF PREVAILING MISCONCEPTIONS OF THE SEMANTIC DISCIPLINE

In its concrete aspects the science of semantics is concerned with the nature and the use of symbols. It is intimately allied to the art of verbal expression, its aim being to purify linguistic usage and to make it correspond to scientific reality. For this reason it may seem to some persons, especially those who are interested not only in comprehending the structure of social institutions but also in changing and improving these institutions, that semantics is exclusively preoccupied with words, that its force is spent chiefly in splitting verbal constellations into their constituent elements. Such an assumption, while unfair to the fundamental philosophy and practices of semantics, is based on two counts.

The first is the interpretation given by popularizers of semantics, who make it seem that what is wrong with the world today is to be traced directly to a failure in communication. If those who lead, and the masses who follow, employed symbols intelligently and with precision, the miracle of social reconstruction would be achieved. There would be no need for revolution. As it is, most people talk most of the time to themselves. The sounds that issue forth are meaning-

less, though charged with emotional heat and fury. Logically, of course, there is no guaranty that, even if people used language with discrimination and proper evaluation, society would be more rationally organized or the system of production and distribution more equitably arranged.

The second count is a more serious objection to the effectiveness of the semantic discipline. Let us grant, the skeptic argues, that the science of semantics accomplishes all that it sets out to do. The schools are radically reformed with that aim in mind; members of the new generation are semantically emancipated, excellently trained; they use a multivalued language; they are wary of the trap of abstractions; they are immune to propagandistic lures and political oratory and economic myths; they have stripped bare the anatomy of culture. Does it follow that under these circumstances each person will seek for a solution to our social problems that is practicable, socially desirable, and beneficial? The skeptic says "No." The semanticist, however, insists that institutions and laws are made by men. Human beings can shape and control their social destiny. This change of heart and mind, this semantic reorientation, should make it possible to examine the problem objectively and arrive at sound means of social progress. Man would thus achieve the fulness of his potentialities, realize his manhood.

#### REQUISITES FOR ESTABLISHING THE SCIENCE OF SEMANTICS IN THE SCHOOLS

At any rate this criticism reaches to the heart of the matter: if the study of semantics does not have a measurable and lasting beneficial influence on the minds of the young, then it is no more than a fad, a utopian dream. It is in the schools that "the battle of semantics" will be fought. That is why Professor Alfred Korzybski, a pioneer in the movement and author of *Science and Sanity*,<sup>1</sup> and his disciples are so eager to capture the citadels of education. Once the young are converted, the struggle for ideological survival has been won.

Before the science of semantics can establish itself in the schools,

<sup>1</sup> Alfred Korzybski, *Science and Sanity*. Lancaster, Pennsylvania: Science Press Printing Co., 1933.

however, there are a number of misconceptions that must be cleared up. One of these relates to the nature of language. If the young are to be taught to beware of emotive language, they may form the erroneous conclusion that emotive language is not only dangerous but illegitimate. Such a notion could arise only from a misunderstanding of the educational implications of semantics. Emotive language has its purpose and its uses in both poetry and prose. Language is a fusion of various types of meaning, and emotion can no more be eliminated from human discourse than it can be completely eliminated from human thinking. The organism cannot and does not function in isolated units; it operates always as a whole. The task is to discover what degree of emotional content is permissible in a given context.

For example, *Language in General Education*, the report of the Committee on the Function of English in General Education for the Commission on Secondary School Curriculum, is a harbinger of the reforms that will gradually be instituted in the teaching of English.<sup>1</sup> The new methodological approach calls for critical insight. It insists on the necessity of mastering the printed word; otherwise the student profits but little from the study of literature. Such mastery presupposes power over language. Knowledge of language, its function and its meanings, is the point of departure. Words must not be studied in isolation; they must be tied up with the objects or experiences which they symbolize. Hence in the interpretation of literature it is essential to depend more and more on the reader's experiences and reactions, not merely on his vocabulary range. Once this connection has been established, the habit of critical thinking begins to develop. The authors of this volume conclude that teaching language is "teaching the technique of classifying, sorting, ordering, clarifying experiences—the technique of thinking straight."<sup>2</sup>

A course in semantics should be based on two things: linguistics and experience. The two might, in fact, be considered aspects of a

<sup>1</sup> See also Charles I. Glicksberg, "The Semantic Revolution and the Teaching of English," *Harvard Educational Review*, X (March, 1940), 150-63.

<sup>2</sup> *Language in General Education*, p. 63. A Report of the Committee on the Function of English in General Education for the Commission on Secondary School Curriculum of the Progressive Education Association. New York: D. Appleton-Century Co., Inc., 1940.

single force, namely, experience; for language is a mode of behavior, a flexible and socialized method of reacting to experience. Now experience has two poles: a positive and a negative. According to John Dewey, "the *measure of the value* of an experience lies in the perception of relationships or continuities to which it leads up."<sup>1</sup> Experience implies active participation, cognition directed to some end, both mind and body conjointly enlisted in bringing about some consequences. At no time must words be permitted to take the place of ideas, or mind be cut off from the primary source of experience. The important thing in the learning process is not the absorption of so much subject matter but the perception of relationships; and these relationships cannot be discerned without antecedent experience. To initiate thought there must be a challenging situation. Dewey stresses the moral, so vital for the student of semantics, "that no thought, no idea, can possibly be conveyed as an idea from one person to another. When it is told, it is, to the one to whom it is told, another given fact, not an idea."<sup>2</sup>

Now the classroom as organized and conducted at present must, of necessity, confine itself to linguistic analysis, the consideration of symbolic references and verbal interaction. Traditional pedagogic methods take it for granted that the student has had the experiences necessary to give him an understanding of these symbols in their native context. That assumption, as every seasoned teacher knows, is often mistaken. The enslavement to stereotypes characteristic of young people can be observed in almost any classroom. These stereotypes are affective symbols which are the product of cultural conditioning. The family, the home, the school, the social environment in all its institutional ramifications—each of these has played its part in imposing these stereotypes on the plastic minds of the students, who accept them uncritically and with complete conviction. These are not tentative solutions to problems that might arise; they are sacred and final truths. Hence they prove a tremendous convenience; they facilitate the work of "thinking" in that they make unnecessary the difficult work of evaluation.

Enslavement to stereotypes can easily be put to the test in the

<sup>1</sup> John Dewey, *Democracy and Education*, p. 164. New York: Macmillan Co., 1916.

<sup>2</sup> *Ibid.*, p. 188.

classroom. Ask the class a question which calls for precise knowledge, and there will, as a rule, be a paucity of responses. Change the stage setting, however; present a problem of a general nature, especially one which invites a verbalized reaction; and see what happens. There will be an instant and enthusiastic response. The questions proposed may be of this type: "Should democracy be defended against the enemy within the gates?" "May the precious right of free speech ever be abridged?" "Should radicalism be wiped out?" "Should married women be denied the privilege of holding jobs?" The answers are stereotypes of the worst kind, sounds which are syntactically correct but semantically meaningless. "Americanism," "democracy," "freedom," "free speech," "communism," "fifth column," "aliens," "subversive doctrines"—the students pack these abstractions with a variety of emotion-charged associations. One student means by "free speech," as did Lincoln Steffens,<sup>1</sup> the "right" to discourse on any doctrine, to express any idea, especially if it is unorthodox or unpopular because otherwise the "right" is self-defeating and cancels itself. Another student, equally vehement and dowered with God-given light, insists that this "right" is confined to the propagation of sound, not subversive, ideas; that otherwise "the right of free speech" would mean the power to preach any doctrine, which is license, or the privilege to hurt other people's sensibilities, which would result in anarchy. Here we have two opposed conceptions, and yet they can be reconciled if the students agree to discuss the problem, not as a right in general, but as a right in a specific context or situation at a given time.<sup>2</sup>

If the language and the thinking of people are marked by severe abuses and aberrations, it then becomes the task of the educator to discover why this is so. If people play ducks and drakes with their linguistic resources, there must be a good reason. What can it be?

<sup>1</sup> *The Autobiography of Lincoln Steffens*, p. 639. New York: Harcourt, Brace & Co., 1931.

<sup>2</sup> Words are charged with magic. They have power to do good or evil. The rulers of society are fully alive to the danger of allowing verbal symbols to circulate freely. Symbols are associated with ideas, and ideas of a certain kind are deliberately forbidden, branded as illegal. The heads of modern states are aware how easily key symbols may be manipulated to almost any desired end. That is why the totalitarian state takes care to keep a watchful, censorious eye on newspapers, books, and the radio.

There is probably no single reason but a multiplicity of reasons, and among them the most potent is the desire of the mind to conceive and interpret the world in an image both familiar and reassuring. When people resist semantic analysis of their cherished symbols, they are unconsciously defending the values they implicitly hold. Indirectly they are saying: "This is what I wish to believe, whether it is true or not. If these be illusions, I still prefer them to the *rigor mortis* of your rational truth."

That indeed is the crux of the matter; the great majority of people are simply disinclined to undertake the exacting labor of independent thinking. They take refuge in stereotypes, in tribal formulas, because fundamentally they refuse to organize their lives on a consistently rational plan. They are unwilling to follow through the implications of their behavior or to make their actions square with their philosophies of life. They acquiesce in a world which is irreducibly irrational, crisscrossed with lines of chance, perplexingly incomprehensible. Things being what they are, the best one can do is to make a happy compromise: live in the moment, peer not too curiously into the mysterious recesses of the mind.

This recalcitrance to semantic principles should serve as a warning that it is not enough for the schools to teach the art of straight thinking. Imparted knowledge of how to think affords no guaranty that this knowledge will be actually applied or that it will be applied intelligently. A course in formal logic would achieve little or nothing unless there went with it a personal desire to think straight and a moral belief in the importance of such thinking. "Knowledge of the methods alone will not suffice; there must be the desire, the will, to employ them."<sup>1</sup> This desire springs not from instruction but from the depths of character. Character and intellectual understanding must fuse before responsible reflective thinking can be put into practice in the schools. Students must be led to develop qualities like open-mindedness, wholeheartedness of interest, a sense of moral and intellectual responsibility.

The immediate effect of exposure to semantic principles is, in many cases, to induce a mood of skepticism so thoroughgoing that one begins to doubt all things. Nothing is certain, and, if this propo-

<sup>1</sup> John Dewey, *How We Think*, p. 30. Boston: D. C. Heath & Co., 1933.

sition is accepted, then any form of discourse is rendered impossible.<sup>1</sup> One grows tensely aware of the pitfalls of language, the variables and the missing links in a course of argument, the untrustworthy nature of evidence, the dangers of abstractions, the exceptions to the rule. One perceives quantitative qualifications where, before, truth was absolute and unquestionable. Gone are the days when an object was either black or white, a deed either good or bad. Judgments of value do not fall so lightly and trippingly from the tongue.

At first the semantic method may appear to be a severe handicap, a muzzle tied over the mouth, a form of censorship established over the mind. In time, however, the purpose of the method becomes clear. The object is not to shut off the stream of discourse but to channel it in a given direction, to control its volume, quality, and flow. The development of a delayed response is helpful in that it enables us to throw off the domination of verbal absolutism. We see ourselves dwelling in a precarious, dynamic universe; we realize that simple events are more complex than our language indicates them to be; we look for the relationship obtaining between symbol and object.

Offhand the art of teaching semantics does not seem difficult. Semantics is nothing less than the application of scientific ways of thinking to the problem of communication. There were semanticists before Korzybski. Every writer who is painstaking and conscientious in his choice of terms, scrupulous in his contextual elaboration of meaning, is a semanticist, whether he knows it or not. Even the adolescent can gradually be made to see that a word used in different connections cannot and does not mean the same thing. He can discover, with a growing sense of wonder, that a word is not a thing. We use words almost as naturally as we eat and walk, sleep and think; hence the apparent unity of object and name, language and the event which it symbolizes. The mystery of transubstantiation is as nothing compared to this. The wedding of elective affinities has been so complete that it never occurred to anyone that it could be otherwise. Language, like grass and trees, like waters and skies and hills, is an organic part of creation. The result is an enormous

<sup>1</sup> Logical positivism, however, maintains that no proposition is logically certain; it can only be probable, depending on its degree of empirical verification.

simplification and economy of resources, a triumph of the human imagination. Originality can proceed no further. Man need no longer carry about with him copies of what he wishes to refer to; he simply utters the magic name and, presto, it is there.

For ordinary purposes of discourse the semantic method seems unnecessarily laborious, as well as annoying. People do not generally require that refinement of communication to make themselves understood. The majority of them, indeed, are irritated by anyone who ventures to question their proffered meanings. They are satisfied with a rough-and-ready approximation, content with grasping a portion of their neighbor's intended meaning. Their sole object is to establish a feeling that communication is going on and that they agree or disagree with a number of issues. All this has a decided bearing on the problem of applying semantics to education. If the adults of the community abuse the language function in that way, what hope is there for the young? If gold rusts, what will iron do?

Educators must courageously grapple with this problem. Should the schools take the lead in reforming the language function of the young? The task involves far more than linguistic considerations. It involves also mental hygiene, a reorientation of the mind, the birth of a new philosophy, a new attitude toward the self and the world. It will take time; the movement at first will encounter ridicule as well as strong resistance. Precisely because it belongs to no school, radical or conservative, precisely because it holds itself free to focus the critical method of inquiry on any field of thought, will it be regarded with hostility by those who fear the light of truth. It works for sanity in a society that is frantically and destructively irrational.

The fate of semantics depends on the young who are linguistically not beyond redemption. They are the ones who will greatly benefit from such a course in scientifically controlled thinking. They can still be saved. But their semantic "salvation" calls for competently trained teachers.<sup>1</sup> Unfortunately many teachers who take a course

<sup>1</sup> The Institute of General Semantics in Chicago, of which Alfred Korzybski is the director, is doing all it can to spread the gospel. Teachers who are interested in the educational work of the Institute should communicate with the secretary, Miss M. Kendig, who will be glad to answer any inquiries.

in semantics (a number of colleges are now giving postgraduate courses devoted to semantics) complain of the ponderous terminology, the umbrageous obscurity. The attitude of teachers to the leading principles of semantics is significant, not so much because teachers are in a pivotal role—they control the learning process of the young—as because it is symptomatic of the reaction of the public at large. If teachers respond in this impatient and uncritically critical manner, imagine what the public with its vast fund of ignorance and prejudice and superstition will say. Members of the laity will find noble reasons for the most ignoble actions; they will abuse language to their heart's content; they will echo the cultural assumptions and magic key words of their class, their occupation, their community; they will hound the nonconformist, persecute those who fail to mouth the officially prescribed sentiments and symbols.

If lay persons are critical and impatient—and they are—a difficult educational problem is created. It then becomes increasingly hard to educate children in semantics without having them become corrupted by their social environment. Education is not confined to a classroom; it is a lifelong, socially conditioned process. To what extent can the schools recommend norms, develop attitudes and habits which are squarely opposed to those that the community prizes and considers "normal" and desirable? How can the schools overcome the intellectual resistance of students who have been family-conditioned and who are still affectively under the spell of the prevailing social norms? Any critical questioning of these norms would be instantly misconstrued as an attack. The superego of the students would rise in revolt and repudiate this "subversive" notion. Aside from that, the teachers are themselves bitten with the same impulses and desires, only on a more modest and conventional scale, as the members of the community. It is, therefore, unlikely that many of them would feel inclined to undertake this work of critical revision of values, this task of forging ahead toward the "truth," "though hell should bar the way." Circumstances like these make it clear that social development, since it depends on moral and social and educational values as well as objective factors, must be slow, complicated, and laborious—a series of attacks and retreats,

advances and retardations. It will take a long time before a scientific concept of society will establish itself.

#### SUMMARY OF GREATEST PRESENT NEEDS

The striking feature of the semantic program in education is that it has a vital power of adaptation to human needs; it is sensitively responsive to the demands made upon it. Each person can find his own level of understanding. This flexibility of the semantic discipline makes it of great usefulness to the educator. It can be geared to the wide range of individual variation. For this reason there is little point in drawing up a comprehensive course of study in semantics. There can be no such thing as *a* course of study. Each school will take what it needs, experiment in directions that it deems desirable. Both the teachers and the students who accept the challenge that the science of semantics holds out, will be glad to follow where their exploratory insight and their intellectual interests lead them. Out of these educational experiences and experiments there will gradually emerge a method, a perspective, a body of values. The great needs at present, if semantics is to make its maximally fruitful contribution to education, are, first, a staff of trained, enlightened, and enthusiastic teachers; second, publicity designed to make the community of taxpayers receptive to "the new idea"; third, a series of successful experiments in the application of semantics to education; and fourth and last, a press which will publish books on the subject as well as a magazine devoted to articles in this field. It is of urgent importance that the science of semantics consolidate the gains already made. It is now time to be positive and constructive—to set about at once formulating and putting into practice a science of semantic education.

## INSIGHT OF OLDER PUPILS INTO THEIR KNOWLEDGE OF WORD MEANINGS

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A READER encounters words of varying degrees of familiarity and strangeness. The meanings of some words will have all the certainty of self-evidence. He finds others whose meanings he knows in some contexts but whose use in the material immediately at hand is new and different. Some words whose form and pronunciation are readily recognizable as old acquaintances he accepts as also generally familiar in meaning, although he may or may not be conscious that their meaning content is rather vague. Others, he feels, he should know but cannot quite place, while still others, he realizes, are complete strangers.

Comprehension of what is being read is inadequate unless a fairly large proportion of the words are in the first category. It is also inadequate if, through some incorrect association or through carelessness, the reader treats words of other categories as though they were in the first. The reader, it is true, needs to develop skill in deriving meanings from the context, especially in view of what Richards calls the "interinanimation of words."<sup>1</sup> Excessive and superficial dependence on context, however, permits too many words to remain in the third category (familiar in form but vague in significance), with consequent dulling of the reader's sensitivity to variations in meaning and with retardation of vocabulary growth.

Strength in interpretation thus rests in part, particularly in the higher grades, on the accuracy of the pupil's insight into his knowledge of words and on the use he makes of context. This insight, coupled with context skill, constitutes a large part of being "vocabulary conscious," the other component being an acquisitive and positive attitude toward words. "Vocabulary conscious" we must make

<sup>1</sup> I. A. Richards, *The Philosophy of Rhetoric*, pp. 45-46. New York: Oxford University Press, 1936.

pupils in the higher grades, since direct teaching of only a fraction of the exceedingly extensive vocabulary is all that is possible.

It is important, then, to know how accurately pupils in the higher grades can judge their word knowledge. How good is their insight into their limitations? Studies of intermediate-grade groups suggest that the insight of pupils at that lower level is far from perfect. If a pupil says the meaning of a word is unknown to him, a suitable test usually confirms his judgment.<sup>1</sup> However, pupils identify as unknown in reading matter fewer than half the words that they miss on a vocabulary test.<sup>2</sup> The difference is far too great to be explained by the fact that the vocabulary test is directed at only one sense of a word and thus unduly penalizes the child who is ignorant of that sense but who may know others. At the secondary-school or the college level it is sometimes asserted that the pupil has better insight into his knowledge; that "he or she is a good judge of what words he or she does not know."<sup>3</sup> Observation of the work of college Freshmen on vocabulary exercises raises a question about the complete accuracy of this latter point of view and leads us to present some typical findings.

#### METHODS OF TESTING INSIGHT INTO WORD KNOWLEDGE

To aid students in checking their word knowledge and to provide them with a "felt need" for developing an acquisitive attitude toward vocabulary, the writers for several years have asked members of reading groups to mark words they do not know in lists and in passages and have later administered vocabulary tests. Students are allowed as much time as they need in all these exercises.

Two methods of presentation have been employed, which must be described separately to make the results clear. We have not made any elaborate comparison of the two methods as teaching techniques.

<sup>1</sup> Edward William Dolch, "Testing Word Difficulty," *Journal of Educational Research*, XXVI (September, 1932), 22-27.

<sup>2</sup> Jeannette Elivian, "Word Perception and Word Meaning in Silent Reading in the Intermediate Grades," *Education*, LIX (September, 1938), 51-56.

<sup>3</sup> Robert L. McCaul, Jr., "Nature of the Reading Needs and Difficulties of Secondary-School and College Students," *Reading and Pupil Development*, p. 254. Proceedings of the Conference on Reading Held at the University of Chicago, Vol. II. Compiled and edited by William S. Gray. Supplementary Educational Monographs, No. 51. Chicago: Department of Education, University of Chicago, 1940.

In the first method of presentation the students are given a page of connected reading material including thirty-four words on which, later in the hour, they are to be tested. Nothing is said about the coming test, and they are simply instructed to "underscore any word whose meaning you do not know." After some twenty minutes of unrelated work they are asked to take the Booker fifty-word vocabulary test,<sup>1</sup> no mention being made of any connection with the initial exercise. The words of the test appear in sentences or phrases with a five-word choice for answer. Two hundred and twenty-five Freshmen were tested by this method. Their mean score on the Booker test was 27.9, while the mean for Dartmouth Freshman classes as a whole, like that in Booker's study at the University of Chicago, ranges around 30.

In the second method of presentation the students are first given the fifty words of the Booker test in list form, with instructions to "check each word whose meaning is not known to you." They then underscore unknown words in the connected reading material using thirty-four of the fifty words, and later in the period they take the vocabulary test. This method was used with fifty-seven Freshmen, whose mean score on the Booker test was 24.6.

#### FINDINGS AND POSSIBLE EXPLANATORY FACTORS

Do students miss on a vocabulary test the words that they indicate to be unknown to them? The fifty-seven Freshmen tested by the second method actually missed on the vocabulary test only 64 per cent of the words that they had checked as unknown. If they actually had had *no* knowledge of these words and if chance alone had determined their answers on the test (as is probably seldom the case),<sup>2</sup> their chances of being wrong would have been four out of five, or 80 per cent. Further study might show whether the students with a vague feeling for the word in the one-sentence context of the test were hesitant to say that they "knew" it when they merely saw it in a list, or whether they had more than a pure chance of success because some of the wrong choices in the vocabulary test could be recognized as not fitting into the context.

<sup>1</sup> Ivan Albert Booker, "Test of Reading Vocabulary" in "The Measurement and Improvement of Silent Reading among College Freshmen." Unpublished Doctor's thesis, Department of Education, University of Chicago, 1934.

<sup>2</sup> See Edward William Dolch, *op. cit.*

Do students show on a vocabulary test that they know the words which they say they know in lists or in context? The fifty-seven Freshmen missed on the test 44 per cent of the *unchecked* words on the list, which they supposedly knew. When this figure is compared with the 64 per cent above, it is seen that the average student's statement is a very uncertain guide to his performance on a test.

When the data are analyzed in terms of words missed, it is found that these students identified as unknown on the list only 45 per cent of the words which they missed. The findings are not greatly different for words in a continuous passage. Here the analysis is restricted to the thirty-four words in the passage which appeared on the first two pages of the test. Only 44 per cent of the number missed were underlined as unknown. Of these same words, 37 per cent were checked in the list as unknown. The difference between the two methods appears to be slight. If anything, these students seemed slightly more sure that they did not know the meaning of a word in a specific context.

Unless one wishes to discount entirely the validity of the commonly used technique of vocabulary-testing employed in the Booker test, it appears that these students recently out of secondary school had inaccurate insight both as to the words they did not know and as to those they did know.

The split-half reliability of the Booker test is not directly pertinent to the results just described, although it may be to those which follow. For the complete test, correlation of odd and even items for 258 Freshmen yields a coefficient, corrected by the Spearman-Brown formula, of  $.93 \pm .01$ . A similar corrected coefficient for the thirty-four items in the connected material is  $.82 \pm .01$ .

Since the reader may desire to try these techniques in testing or in instruction with his own pupils, it may be said that other vocabulary tests would be as adaptable to the purpose as the less easily obtainable Booker test. Among them are the Inglis Test of English Vocabulary, the Columbia Vocabulary Test, the O'Rourke Survey Test of Vocabulary, or the vocabulary subtest section of a general reading test, such as the Nelson-Denny Reading Test, Iowa Silent Reading Tests, Minnesota Reading Examinations for College Students, or Traxler Silent Reading Test, the choice depending on the

maturity of the pupils. The words from one of these could be used either for a check list or for building into contextual material to be marked by the pupils, the test itself being given later. More simply still, the teacher might have his pupils check unknown words in a book or in an assigned reading, meantime having prepared his own vocabulary test of the words on which he wished to check their word skills.

What sorts of students have the poorest insight into their deficiencies? In the hope of learning of possible factors which might either accompany or account in part for the inaccuracy in word knowledge, the study was carried further.<sup>1</sup> The number of words underscored as unknown on the page of reading matter was correlated with the number of the same words missed on the vocabulary test. For 225 Freshmen tested by the first method, the coefficient of correlation was  $.50 \pm .03$ . In general, students who missed more words tended to express greater ignorance on the continuous passage. The relation was by no means perfect, however. A score was therefore computed to express each student's tendency to overestimate or to underestimate his word knowledge. This score was obtained by finding the difference between the number of words which he underscored as unknown on the page of connected material and the number which he missed on the first two pages of the test. The estimate scores ranged from overestimation of  $+19$  to underestimation of  $-5$ . It is obvious that a student who missed many words had a greater chance to overestimate his knowledge than one who missed few—a fact which must be kept in mind in evaluating the following figures. A number of efforts to allow for this fact, however, produced results roughly similar to those here given.

Table 1 presents coefficients of correlation between estimate scores and three measures of size of vocabulary; score on the American Council on Education Psychological Examination for College Freshmen, 1939 Edition; and reading comprehension score for Tests 1, 3, 4, and 5 of the Iowa Silent Reading Test, Form B (revised) for High Schools and Colleges. Test 2, Word Meanings, of the Iowa test was intentionally omitted from the measure of comprehension.

<sup>1</sup> These data are from T. D. Goodrich, "A Psychological Study of the Factor of Estimation in Vocabulary." Unpublished Senior thesis, Department of Psychology, Dartmouth College, 1940.

Although none of the coefficients is high, the fact that all are negative suggests a tendency for the student with the smaller vocabulary and with the lower psychological-examination or reading-comprehension score to be more likely to overestimate his knowledge of word meaning. The correlation of the Booker vocabulary test with the estimation score runs higher than the other vocabulary correlations because this relationship involves the same words. To check whether scholastic aptitude might be an important factor within the vocabulary relationship, a partial correlation was computed between

TABLE 1

CORRELATION OF ESTIMATE OF KNOWLEDGE OF WORD MEANING WITH  
VOCABULARY, PSYCHOLOGICAL-EXAMINATION, AND  
READING-COMPREHENSION SCORES

Test	Number of Cases	Coefficient of Correlation
Booker Test of Reading Vocabulary.....	172	$-.59 \pm .03$
Iowa Silent Reading Test, Test 2, Word Meanings.....	203	$-.36 \pm .04$
Cooperative English Test, Series 2, subtest for vocabulary.....	199	$-.36 \pm .04$
American Council on Education Psychological Examination.....	205	$-.26 \pm .04$
Iowa Silent Reading Test, Tests 1, 3, 4, 5 (comprehension).....	198	$-.37 \pm .04$

estimate scores and scores on the vocabulary section of the Iowa test, with the psychological-examination score held constant. The obtained coefficient,  $-.26 \pm .04$ , leaves the relation reported in the table not greatly changed.

## IMPLICATIONS

Evidence has been presented showing that the average student's insight into the extent of his word knowledge is faulty. There is also some evidence that the pupils most in need of vocabulary enlargement are too often the students least likely to realize their need or to appraise their limitations correctly. The findings point to one of the dangers in trusting that wide reading will assure vocabulary growth. The reader who has little insight and who is satisfied with a superficial dependence on context may continue to read at a low level of efficiency and make little vocabulary growth. Frequently pupils do

not infer the meaning of a word from the context, but merely ignore the word, and get what meaning they can from the rest of the sentence or paragraph.

Even a sincere effort to judge meaning from context may suggest only a broad range of possible meanings. The reader will realize this if he tries to guess the meaning of "nunbatly" in the sentence, "This has been nunbatly discussed in the present paper." The *ly* gives a clue, but does the word mean "scarcely," "briefly," "clearly," "badly," or what? Clear meanings can be inferred only if the passage provides for repetition of unfamiliar words in varying contexts of familiar words—a condition often not met by materials used at the secondary-school level.

Obviously, then, teachers in all subject fields, as well as teachers of remedial work, have a responsibility for helping pupils discover inaccuracies in their word knowledge. In efforts to make pupils aware of their inaccuracies, the techniques described in this report are of value. A pupil should score his own vocabulary test and compare the words missed with those underlined previously as unknown. The instructor should direct attention to the reliability of the pupil's judgment concerning which words he knows and should discuss with the pupil his tendency to make too little or too superficial use of the context. He may also discuss the adequacy of the size of the vocabulary judged by this particular sampling.

Such an exercise can be followed and reinforced by others. Good results can at times be obtained by requiring pupils to note the unknown words in assigned reading, record them in a special place in notebooks, and hand in at regular intervals lists of these words with their meanings. Another practice of proved value is that of displaying words with their definitions or in sentences on a blackboard during the minutes while a class is assembling. The words may be drawn from the assignment, and the teacher may or may not comment; but experiments have demonstrated that, if they are regularly placed on the board, many pupils check through them with profit.

Still other methods will occur to the reader. The special virtue of the testing technique is that it shows the pupil, forcefully and objectively, how easily he may overestimate his vocabulary. Once he recognizes his weaknesses, training is likely to be of greater value.

## A CO-OPERATIVE TRAINING PROGRAM IN A SMALL SCHOOL

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THE Turtle Lake High School, enrolling 140 pupils, is located in a typical North Dakota small town. Most of the business activity is confined to a single main street. During eleven years of service as an educational administrator in this locality, the writer has seen many boys and girls come and go from the educational institutions of this area, and it cannot be said that the educational methods have resulted in a satisfactory product. Youth of the past few years have seemed helpless, floundering in a maze of potential opportunities, with no tangible occupations in view. So poorly have they been trained that most graduates have confined their activities to "helping at home" or doing odd jobs. Many have been unaware of abilities upon which they could capitalize. Have not the schools been handicapping these boys and girls by failing to provide them with some type of educational program whereby their interests and abilities could be developed? The purpose of this article is to describe the attempt of one community and school to meet this problem of guidance and training.

The need for such a program in this small school was indicated by a survey of the 231 pupils who had graduated from the Turtle Lake High School in the years 1930-40. Some very interesting information came to light. These data demonstrated that little provision was made by the high school to give individual pupils adequate preparation for definite types of work. It is probable that there is a close similarity between the activities of this high school and those of other high schools in the area. The conditions indicated clearly the need of a guidance and counseling program in the small secondary schools. Ninety-seven of the 231 graduates did not continue their education beyond the high school—a high proportion of pupils

leaving school without practical training in any vocational field. Not only did the school fail to train them vocationally, but in most cases it did not give them a basis for choosing vocations. The survey did not reveal how many of the graduates who were employed were satisfied and happy in what they were doing. Neither they nor their teachers even knew the general kinds of work for which they might be suited. Most of them merely grasped the first occupational opportunity that came along. It is doubtful whether the instruction in the only available vocational curriculum, agriculture, was of particular benefit as occupational preparation, if we may judge by the number of graduates, twenty-one, who followed agricultural pursuits. Even after they had completed the course, the school was not certain that the "right" pupils had registered.

Educators argue constantly that schools should provide a type of educational program which will develop abilities and aptitudes now dormant in many pupils. Present programs afford few opportunities for such development. Douglass writes:

The high school of today . . . is not only a teaching agency, giving instruction in languages, sciences, literature, history and social science, fine arts, and vocational subjects, but also an agency for enabling students to study themselves—their capacities, their interests, their needs, and the possibilities open to them educationally and vocationally—and to adapt their educational program most effectively to the purposes of exploration and specialization.<sup>1</sup>

The efforts of these educators are slowly bearing fruit. A national crisis was needed, however, to make the public realize that secondary schools had failed to produce individuals trained for specific duties.

Not even the most optimistic administrator or personnel worker would argue that a program of guidance and counseling is a panacea for all the errors of the educational system, but it is an established fact that such a program will decrease, to an appreciable extent, the number of outmoded ideas present in education today. In the majority of schools where a program of guidance and counseling has been instituted and developed systematically by persons trained for such work, the results have exceeded expectations.

<sup>1</sup> Harl R. Douglass, *Organization and Administration of Secondary Schools*, p. 156. Boston: Ginn & Co., 1932.

The program which has been inaugurated in the Turtle Lake school system is a small-scale beginning, based on intensely practical considerations. However, even in the early stage the effect on members of the student body is very noticeable.

The program is simple and lies within the limits of the town's resources and professional opportunities. We started with a small group, chiefly members of the Senior class. We asked the students about their further educational plans. Those pupils who were interested in college and who gave some evidence of academic ability were enrolled in the college-preparatory curriculum. Pupils who were in doubt, who would experience great difficulty in meeting college competition, or who because of financial or other reasons would terminate their schooling with high-school graduation were given special occupational experiences outside the school. In 1940-41 there were eighteen pupils who for various reasons were certain that they were not going to college. Each of these eighteen was assigned in the community to a type of work which he or she had chosen with the aid of school and community advisers. Because of the town's size, we were not able to place every pupil in his or her first choice of work, but no pupil worked at any job which was not a first or a second choice.

The methods used to place pupils as "occupational interns" are shown in the following outline.

#### A. Beginning steps

1. We called business and professional men together in a community meeting, where we explained the plan, having all materials and data on hand.
2. We made arrangements to place pupils, with or without compensation, in various business and professional opportunities. The pupils were to work two hours a day for five days each week.
3. We cleared the details of the program with all necessary agencies.
4. We tested the pupils on the following tests:
  - a) Kuhlmann-Anderson Intelligence Tests
  - b) Gentry Vocational Inventory
  - c) S. Ishihara Tests for Color Blindness
  - d) A survey test in social studies
  - e) Co-operative General Achievement Test
  - f) A survey test in natural sciences

## B. Operation of program

1. The pupils listed their first and second choices, which were checked with other relevant data.
2. Pupils were helped to arrange school programs which would fit their work schedules.
3. The counselor visited pupils at work at least twice a month.
4. The counselor interviewed supervisors bimonthly.
5. The supervisors filled in forms at the end of four and a half months.
6. The pupils enrolled with employment agencies.
7. Qualified members of the group wrote competitive examinations.
8. Credit was allowed for full-time school attendance.

We first invited a representative of every business and profession in our community to a meeting, when the general plan was presented by the superintendent. The meeting developed into a forum, in which all took part. Questions of the following type were asked: "Do we have to keep a roll of attendance and tardiness?" "Will we have to pay the pupil workers?" "Is it necessary to keep them working when we are satisfied that they are not interested?" "What are we supposed to teach them?" "Do they have to have union cards?" Satisfactory answers were given. The point was stressed that the pupils sent to them were to be more than mere errand boys. Members of the group indicated in writing the number of boys and girls that they could instruct. The program details were checked with all necessary agencies as soon as possible. Clearance from various state agencies, such as the workmen's compensation bureau, the state education department, the social security board, and the state banking board, was obtained. Union groups, such as the barber and the cosmetologist organizations, were consulted. The testing program was important; tests of aptitude and achievement and interest inventories were definite parts of the program. In many states there are institutions which will co-operate with schools in a testing program. The North Dakota Agricultural College at Fargo and the University of Minnesota Testing Bureau at Minneapolis were helpful in our situation. Special tests may be necessary in particular cases, for example, the test for color blindness.

After such a program is under way, its success depends largely on the attitudes and the hard work of the counselor and other members of the faculty. The school curriculum and the practice on the job

must be integrated. This necessitates co-operation on the part of the counselor, the administration, and the community. Turtle Lake High School offers modified courses in English, mathematics, natural sciences, and typewriting, which develop the necessary essentials in place of the academic requirements of the college-entrance curriculum. Supervision aids greatly in promoting the success of the program. Enrolment with a number of legitimate and ethical employment agencies by members of the group was urged as a means of obtaining further training or permanent employment.

The school and the community are well satisfied with the progress which the plan of vocational practice has made in one year. There is a waiting list for internships in 1941-42. In all probability the high-school enrolment will be increased because of the program. The vocational-practice pupils have co-operated with the school to the fullest extent, and the community is solidly behind the program. Eight practice pupils obtained permanent jobs at the close of this, their last, year in school, through their assignments during the year. It is hoped to improve practices and widen the scope of the program. The counseling program is embryonic but is showing signs of solid growth. The faculty of the school is of the opinion that the pupils have suffered no harm and that a representative number of the pupils have obtained vital and functional training.

## TESTING JUNIOR HIGH SCHOOL MATHEMATICS CONCEPTS

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NEW classroom teachers of junior high school mathematics would deny that a knowledge of technical words and phrases is indispensable to progress in the study of the subject. Textbooks, tests, and classroom discussions demand that the successful pupil be familiar with certain words associated with algebra, geometry, and arithmetic. Teachers usually are careful to introduce and emphasize the meanings of these words. However, as apparent as the need is, comparatively little has been done to ascertain the "extent of mastery," or the types of meanings which the pupils recognize for the words.

In 1937 Grossnickle studied the relation of knowledge of concepts in arithmetic to other factors in school success. Discussing the relation between problem-solving ability and knowledge of concepts, he says: "However, much more experimenting needs to be done in the construction of reliable tests to measure a knowledge of concepts."<sup>1</sup> Mastery of a concept is defined in his investigation as the correct answer to one exercise in the test given. At about the same time Buckingham<sup>2</sup> reported a similar study in which the method of testing vocabulary consisted in requiring a single response for each word. A number of years earlier Butler<sup>3</sup> conducted an elaborate study of the development of concepts in junior high school mathematics. In his investigation a number of operations were demanded of the pupil (for example, association of a word with a given situation, association of a word with a definition, association of a word

<sup>1</sup> Foster E. Grossnickle, "Concepts in Social Arithmetic for the Eighth Grade Level," *Journal of Educational Research*, XXX (March, 1937), 487-88.

<sup>2</sup> Guy E. Buckingham, "The Relationship between Vocabulary and Ability in First Year Algebra," *Mathematics Teacher*, XXX (February, 1937), 76-79.

<sup>3</sup> Charles H. Butler, *Mastery of Certain Mathematical Concepts by Pupils at the Junior High School Level*. Columbia, Missouri: University of Missouri, 1931.

with an example), but only one of these operations was called for in connection with any one word. In each of these studies the idea of mastery is judged by the pupil's demonstrated ability with one sort of operation for any one word, and yet different operations are required for different words.

The question arises whether more than one operation and, if so, what group of operations should be considered necessary in an investigation of concept mastery. The possibility of answering this question for junior high school mathematics is indicated in a study of vocabulary in arithmetic by Buswell and John. After tabulating the pupils' answers to four tests using the same words, the authors conclude: "The lack of agreement [between responses on different tests to the same word] . . . suggests that ability to respond to a word correctly in one situation does not necessarily indicate that understanding is complete."<sup>2</sup> The study reported in the present article was an attempt to answer, at least partially, the question concerning the need for use of multiple behaviors in testing knowledge of concepts in junior high school mathematics and to indicate possible techniques for such testing.

#### DEVELOPMENT OF TECHNIQUES

The first step in developing the techniques was to draw up a list of operations or behaviors which might be used to indicate a pupil's concept of a technical word. Test items were then constructed which would call for each of these behaviors in connection with each word of a selected list. Finally, the test items were arranged in groups which were homogeneous with respect to the operations or behaviors. This procedure resulted in the formulation of seven separate tests, each utilizing one behavior throughout and all testing the same list of thirty-five words. One of the tests (an essay-recall test requiring the pupil to compare the meanings of a word when used in two different contextual settings) has been omitted from the following discussion. Returns on this test were too limited to use for reporting, and many of the responses which were returned were vague and incomplete. It is hoped that further experimentation may be

<sup>2</sup> G. T. Buswell and Lenore John, *The Vocabulary of Arithmetic*, p. 42. Supplementary Educational Monographs, No. 38. Chicago: Department of Education, University of Chicago, 1931.

done on a test calling for this behavior. The remaining six tests are described below with sample items from each. It is not contended that these tests represent a complete list of all possible operations but rather that they are reasonably complete and that they include those behaviors which have been used most commonly.

#### CLASSIFICATION OF VOCABULARY TESTS

##### TEST A

*Type.*—Recall-essay, with only the word given.

*Behavior or operation.*—Formulation of a definition or a description of a given word.

*Sample items.*—(12) Rectangle. (13) Equation.

##### TEST B

*Type.*—Recall, single response, with a blank to be filled.

*Behavior or operation.*—Association of a word with a definition of the word.

*Sample items.*—(1) To compare two numbers by dividing one by the other is known as finding the —— of the two numbers.  
(21) A rectangle having all sides equal is called a ——.

##### TEST C

*Type.*—Recognition, multiple choice (four choices).

*Behavior or operation.*—Association of a word with an example of the class that the word denotes.

*Sample items.*—(23) Square: (1)  $\square$ , (2)  $\square$ , (3)  $\angle$ , (4)  $\triangle$ .  
(18) Fraction: (1)  $ax^2$ , (2) 3.4, (3)  $15b$ , (4)  $xy/m$ .

##### TEST D

*Type.*—Recall-essay, containing reading material with underlined words.

*Behavior or operation.*—Indication, by means of a diagram, an example, or a statement, of a knowledge of the meaning of a word presented in context.

*Sample items.*—The braces for the wheels formed sets of *parallel* lines, and the braces for each wheel were in the form of a *triangle*.

##### TEST E

*Type.*—Recognition, multiple choice (four choices).

*Behavior or operation.*—Association of a word with a situation in which the figure, relation, operation, etc., might be used.

*Sample items.*—(1) Ratio: (1) A person wished to compare two different tires as to size. (2) A housewife found that the difference between the cost of sugar per pound at two different stores was 2 cents. [Choices (3) and (4) omitted here.]

(3) Area: (1) A boy counted the number of steps from his house to school. (2) They bought wire for the fence for a circular garden. [Choices (3) and (4) omitted here.]

## TEST F

*Type.*—Recall, single response (reading material in paragraph form, with incorrectly used words scattered throughout the paragraphs).

*Behavior or operation.*—Recognition of the misuse of a word in context (pupil to underline the words incorrectly used).

*Sample items.*—It was also necessary to find the area of the air in the room. . . . The length of the largest room was 25 square feet.

Thirty-five words were chosen from three independent vocabulary studies: the investigations of Schorling,<sup>1</sup> the Presseys,<sup>2</sup> and Scarf.<sup>3</sup> Inclusion in Schorling's list and in at least one of the other lists was one criterion for selection. A second criterion was that the words should represent variation in type (that is, relational words, names of geometric figures, basic operational terms, and descriptive terms) and variation in subject classification (arithmetic, algebra, and geometry) in order that the techniques applied would not be considered restrictive. It is suggested, however, that any school attempting a similar evaluation program should draw up a list of words based on the teaching material for that particular school.

## COLLECTION AND ARRANGEMENT OF DATA

*Administration of tests.*—The tests were given to 331 pupils in eleven ninth-grade classes in the junior high schools of Muncie, Indiana. Nine teachers co-operated by administering the tests to their regular classes in the usual class periods of forty-five to fifty minutes each. Complete instructions were given these teachers. Each class took four of the tests during a period of two weeks—the same two weeks for all classes involved. Of the six tests used, each was given in from four to seven different classes. In the case of

<sup>1</sup> Raleigh Schorling, *A Tentative List of Objectives in the Teaching of Junior High School Mathematics with Investigations for the Determining of Their Validity*. Ann Arbor, Michigan: George Wahr, 1925.

<sup>2</sup> a) L. C. Pressey and M. K. Elam, "The Fundamental Vocabulary of Elementary School Arithmetic," *Elementary School Journal*, XXXIII (September, 1932), 46-50.

b) S. L. Pressey, L. C. Pressey, and F. R. Narragon, "Essential Vocabulary in Algebra," *School Science and Mathematics*, XXXII (June, 1932), 672-74.

c) S. L. Pressey, L. C. Pressey, and R. C. Zook, "The Essential Technical Vocabulary of Plane Geometry," *School Science and Mathematics*, XXXII (May, 1932), 487-89.

<sup>3</sup> Robert C. Scarf, "Mathematics Necessary for the Reading of Popular Science." Unpublished Master's thesis, Department of Education, University of Chicago, 1925.

classes taking the same series, the order of taking the tests was varied so that practice effect might be studied.

*Scoring the tests.*—The 1,059 usable tests were scored twice in order to minimize scoring errors. Four of the tests (B, C, E, and F) were scored by the use of keys. The other three tests (A, D, and G), of the short essay type, were scored by the use of criteria derived from a preliminary analysis of responses. In these latter tests the classifications "Full Meaning," "Incomplete Meaning," "Doubtful as to Meaning," "Omission," and "Incorrect Meaning" were used. For purposes of test comparison the first two categories were regarded as correct answers, the second two as omissions, and the last as incorrect.

The difficulties common to the scoring of all essay-type examinations were found in the scoring of these tests. However, experimentation indicates that it is possible to reach a high degree of agreement between independent scorers if certain rules are followed.<sup>1</sup> An attempt, completion of which was prevented by lack of resources, was made to get some measure of scoring objectivity on these tests. The data derived, although too incomplete to supply experimental proof, indicate that comparatively high scoring objectivity is obtainable.

All statistical constants discussed in subsequent sections of this article are based on total scores, consisting of the number of correct responses. Lindquist indicates that a modified total score, with correction for "chance" or for "guessing," is only slightly, often negligibly, superior to uncorrected scores.<sup>2</sup> Holzinger points out that correction methods may be eliminated if the pupil is allowed to finish the test.<sup>3</sup> The pupils did complete these tests.

#### BASIC QUALIFYING FACTORS

Before the relations between the various tests of a series such as the present one are discussed, it is necessary to consider three basic

<sup>1</sup> Fred P. Frutchey, "Close Agreement Found in Marking Essay Examinations," *Journal of Higher Education*, IV (October, 1933), 376-78.

<sup>2</sup> *The Construction and Use of Achievement Examinations*, p. 117. Edited by Herbert E. Hawkes, E. F. Lindquist, and C. R. Mann. Prepared under the Auspices of a Committee of the American Council on Education. Boston: Houghton Mifflin Co., 1936.

<sup>3</sup> Karl J. Holzinger, *Statistical Methods for Students in Education*, p. 171. Boston: Ginn & Co., 1928.

factors concerning the separate tests: validity, reliability, and practice effect.

*Validity.*—The factors which govern validity are common to all six tests. The words used in these tests are justified as valid junior high school concepts since they were chosen from three independent studies, each of which discusses the justification of the words presented.

The validity of the techniques used is to be judged by a study of the relation of the behavior about which evidence is desired to the behavior necessary for success with the test exercises. The purpose

TABLE 1

NUMBER OF CASES, RANGE OF SCORES, MEAN SCORE, STANDARD DEVIATION, AND RELIABILITY FOR EACH TEST

Test	Number of Cases	Range of Scores	Mean Score	Standard Deviation	Reliability Coefficient
A.....	118	1-27	12.7	6.5	.870
B.....	193	1-29	12.9	7.0	.900
C.....	181	10-36	25.7	4.9	.788
D.....	181	8-32	20.3	5.4	.838
E.....	196	3-33	17.6	5.0	.742
F.....	190	2-32	17.0	6.7	.854

of each test, as previously described, has been expressed as a single function. The tests were so constructed that they would elicit the described behavior in as direct a way as possible. The tests, then, are valid in the sense that there is a close correspondence between the behavior desired and the behavior demanded by successful achievement in the test.

*Reliability.*—Reliability for each of the tests was found by use of the item-analysis method presented by Kuder and Richardson.<sup>1</sup> The number of cases involved, the range of scores, the mean score, the standard deviation, and the reliability coefficient for each test are shown in Table 1.

None of the tests, it would seem, has low enough reliability to

<sup>1</sup> G. J. Kuder and M. W. Richardson, "The Theory of the Estimation of Test Reliability," *Psychometrika*, II (September, 1937), 151-60. The formula used, Reliability =  $\frac{n}{n-1} \left(1 - \frac{\sum pq}{\sigma^2}\right)$ , almost invariably gives a conservative estimate of the "true reliability."

justify elimination on this basis alone. Since the list of words used in this study would, in all probability, be lengthened for regular classroom work, the effective reliabilities would tend to increase in classroom use. The reliabilities would suggest that caution should be used in employing either Test C or Test E as the only measure of a pupil's knowledge of this list of concepts. Clearly the use of more than one of the tests as a combination measure would increase the actual reliability of the judgment of the achievement of the pupils.

*Practice effect.*—A comparison of the trends of means for two classes taking the same tests in opposite order was used to study practice effect. The results show that the amount of deviation caused by repeating the same words in these tests of different behaviors should not be considered a serious drawback to the use of more than one of the tests in a complete testing program. Suitable safeguards should be used, such as allowing for intervening time and withholding class discussion until after the last test has been given.

#### RELATIONS BETWEEN TESTS

As previously stated, reports of investigations of mathematics concepts in the past have been based on tests which employed only one operation for any word. In the present investigation, correlations were obtained between the six tests in order to check the extent of relation between these various behaviors. Comparatively low correlations are evidence that use of one of the tests alone presents an incomplete picture of the pupil's ability with all the behaviors and, consequently, that investigation of concept mastery should be based on the pupil's responses to tests calling for different behaviors with any one word. It is not argued that correlations alone determine which tests or how many tests should be used.

The various tests were so presented that comparisons could be based on at least two classes, or more than fifty pupils. In the computation of the correlation between any two tests, all pupils who took those two tests were used. In Table 2 the obtained correlations and the coefficients corrected for attenuation are presented. The latter are in rank order along with their limiting values. These limiting values at the 5 per cent level were computed by use of Lindquist's

tables,<sup>1</sup> which simplify the application of Fisher's *z*-function. The number of cases is shown for each correlation.

Study of the limiting values in Table 2 reveals that changes in the rank order of the corrected correlations could occur through variations in the coefficients resulting from sampling. However, the best available estimate of the extent of the relationship is that given by the correlation coefficient. The following considerations of testing

TABLE 2  
RANKED COEFFICIENTS, THEIR LIMITING VALUES, AND THE  
NUMBER OF CASES FOR EACH CORRELATION

TESTS CORRELATED	NUMBER OF CASES	CORRELATION COEFFICIENT AND LIMITING VALUES			
		Lower Value	Corrected Correlation	Upper Value	Obtained Correlation
A and C.....	55	.835	.899	.940	.744
D and C.....	119	.805	.862	.900	.701
B and C.....	59	.735	.833	.900	.701
B and D.....	118	.760	.826	.875	.717
A and D.....	59	.640	.772	.860	.648
B and E.....	66	.595	.732	.825	.598
D and E.....	61	.565	.716	.820	.565
D and F.....	116	.605	.710	.790	.600
B and F.....	182	.625	.707	.770	.620
E and C.....	116	.580	.690	.775	.528
E and A.....	58	.475	.654	.780	.525
F and A.....	57	.405	.645	.775	.556
E and F.....	66	.340	.541	.690	.431
C and F.....	58	.215	.450	.635	.369
B and A.....	57	.195	.433	.625	.383

programs are based on comparisons of these values and on the reliabilities of the tests.

If only five of the tests were to be used, it would be best to eliminate Test C or Test D on the ground that these tests appear frequently among the pairs which show the higher correlations and that, therefore, performance on either of these tests might be indexed by scores on the other tests. Since Test D has the higher reliability of the two, elimination of Test C would seem to be the better plan.

<sup>1</sup> E. F. Lindquist, *Statistical Analysis in Educational Research*, p. 215. Boston: Houghton Mifflin Co., 1940.

Should the use of only four of the tests be deemed necessary because of limitations of time or materials, both Tests C and D might be eliminated. Another possibility for the employment of four tests would be the use of Test C or D (which rank most highly) with the three which tend to appear with greatest frequency in the lower ranks. Again, reliability coefficients would indicate that Test D should be used rather than Test C. The use of four tests, according to the latter suggestion, would call for Tests D, A, E, and F. The two eliminated are found in the upper part of Table 2: Test C appearing with Tests A and D; Test B appearing with Tests D and E.

If the testing program were restricted to the use of only three tests, either Test A or Test B should be used with Tests D and F, in consideration of the possibility of indexing all the behaviors from three tests. Two of those which would be eliminated (Tests C and E) have the lowest reliabilities. The choice between Tests A and B could be determined by other factors.

Tests D and C are at opposite ends of the scale of ranked correlation values from Tests F and E. In order to obtain scores on, or to index, all the behaviors as well as possible with only two of the tests, it would be desirable to use one of the former and one of the latter pair. Since Tests D and F present higher reliabilities than Tests C and E, the use of the former pair is recommended.

The use of only one test for measuring junior high school mathematics vocabulary should be avoided. However, if such a procedure were necessary, the correlations and reliabilities would indicate that the one test should be Test D. This type of test, in which the background context is presented with the word,<sup>1</sup> has been used infrequently in former investigations and is perhaps used far too seldom in classroom work.

When the tests are grouped according to type of test, Tests A and D may be paired as recall-essay tests; Tests C and E as multiple-choice tests; and Tests B and F as recall, single-response tests. The fact that the correlations between these paired tests (.772, .690, and .707, respectively) are not high substantiates the contention that selection of tests should be studied from the standpoint of behavior or operation as well as from the standpoint of type of testing device.

<sup>1</sup> Guy E. Buckingham, *op. cit.*

## OTHER SELECTION FACTORS

When a classroom testing program is set up, it is well to give consideration to other factors as well as to statistical relations between tests. One should take into account the size of groups to be tested, the amount of time available or desirable for preparation and scoring, the need for using clerical help in scoring, and the elements of information which are desired.

The present investigation indicates that, so far as the administration of the tests is concerned, variation between them is negligible. On the other hand, there is variation in the ease of construction and scoring of the tests. In the case of the construction of tests, greater difficulty may be expected with Tests B, E, and F than with the others. It is possible to rank them on the basis of least to greatest scoring difficulty in the following order: Tests C and E, Tests B and F, Tests A and D.

The percentage of correct responses for a word in different tests was used as a basis for studying the effectiveness of the separate techniques with the terms used in this study. The variability among the tests does not follow a pattern such that the type of word (geometric, relational, etc.) should influence the selection of tests to be used.

One factor which is very significant in connection with the development of a testing program is the type of information about concepts which any one test presents. The following five elements, presented as questions, may be considered as separate types of information about concepts: (1) Is the pupil's response correct in terms of the behavior being tested? (2) What incorrect concepts does the pupil have? (3) Does the pupil lack a concept for certain terms? (4) For which terms has the pupil developed abstract or complete concepts? (5) For which terms does the pupil have associated meanings rather than basic meanings?

In this investigation it was shown that all six tests contribute to the first element and that all but Test F contribute to the second and third elements. Two of the tests (A and D) are capable of giving evidence on all five elements, and Test C, if care is taken in the selection of the multiple choices, will at least substantiate the evidence on the fourth and fifth elements as well as give direct evidence

on the first three elements. These facts add more weight to the conclusions already drawn, that Tests B, E, and F should not be used as single measures and that, in case only a few tests can be given, Test D should be included. With regard to types of information available, it should be noted also that each of these tests is a group test. For purposes of special testing, Tests D and F, the two with background context present, should be adaptable to individual testing. Test A, as an essay type, should prove valuable also as an individual test in the case of pupils for whom the results on the other tests indicate a need for special testing.

#### CONCLUSIONS

Most investigations of junior high school mathematics vocabulary concepts have used a technique which tests each term with one exercise and, therefore, with one behavior. This investigation, in which six operations were used, shows that pupils' responses to a single term in each of the various tests are not closely related, that no one technique is a substantial index of the behaviors measured by each of the others. When it is desired to determine pupils' concepts, a number of exercises should be used for each word. With knowledge of the particular testing situation, it is possible to select a group of techniques which is better adapted than others to studying the extent of mastery of concepts.

## SELECTED REFERENCES ON HIGHER EDUCATION<sup>1</sup>

JOHN DALE RUSSELL AND DOROTHY T. HAYES

University of Chicago

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**T**HIS list of references represents a selection from over a thousand titles related to higher education that have come to the attention of the compilers between July 1, 1940, and June 30, 1941. As in previous lists, selection has necessarily been made along somewhat arbitrary lines because space does not permit the inclusion of all titles that might be worthy of attention. Practically all books and monographs have been included with the exception of annual reports, yearbooks and proceedings of associations regularly devoted to problems of higher education, and institutional histories.

Selection among the articles has been limited to those published in professional journals during the year, and the choice has been based chiefly on the significance of the contribution to new knowledge; by no means, however, could all the worthy articles of this type be included. As a general principle, the list omits articles that provide only a résumé of material available elsewhere; articles that are merely discussions or presentations of personal opinions, however authoritative; and news notes and papers describing practices in a single institution.

In this analysis of the literature published during the past year, the reviewers have been impressed with the concentration on topics arising out of the emergency situation. Writers, deeply concerned with the problems confronting the country and the world, have devoted their attention to the production and publication of scores and even hundreds of articles dealing with the relation of higher education to democracy and defense. The treatments of this subject

<sup>1</sup> See also Item 331 (Freitas) in the list of selected references appearing in the April, 1941, number of the *School Review*; Item 459 (Goetsch) in the September, 1941, number; and Items 505 (Eells), 506 (Eells), 507 (Eells), 508 (Engleman and Eells), and 510 (Seashore) in the October, 1941, number of the same journal; and Item 561 (Smith and Eaton) in the October, 1941, number of the *Elementary School Journal*.

are mostly of a discussional type, the approach is often emotional rather than scientific, and the conclusions are generally based on logical argument rather than objective evidence.

580. ADAMS, HARLEN MARTIN. *The Junior College Library Program*. Chicago: American Library Association; and Stanford University, California: Stanford University Press, 1940. Pp. xii+92.  
Treats extensively the place and function of the library in the junior college, and concludes with a statement of basic principles for the junior-college library program.

581. ADAMS, HENRY ALBERT. *Criteria for the Establishment of Public Junior Colleges in Kentucky*. Bulletin of the Bureau of School Service, Vol. XII, No. 4. Lexington, Kentucky: College of Education, University of Kentucky, 1940. Pp. 156.  
Collects and evaluates the various criteria suggested by recognized authorities for the establishment of junior colleges and applies these criteria to the situation in Kentucky.

582. AMERICAN COUNCIL ON EDUCATION. Studies of the Financial Advisory Service, Series III, Vol. V. Washington: American Council on Education, 1941.  
Number 19, *What Is Happening to College and University Investments and Income?* by J. Harvey Cain, brings down to date the previous studies of this question and presents a careful analysis of trends in 120 institutions.

583. ANDERSON, JOHN A. "College Credits Earned before High-School Graduation," *School Review*, XLIX (April, 1941), 278-83.  
Finds, from a study of the experience of seven hundred students who had taken work of college grade before completing requirements for the high-school diploma, that large numbers of carefully selected high-school pupils can carry college work with success.

584. BADGER, HENRY G., KELLY, FREDERICK J., and MCNEELY, JOHN H. *Statistics of Higher Education, 1937-38*, Parts I, II, and III (abridged): *Biennial Survey of Education in the United States, 1936-38*, chap. iv. United States Office of Education Bulletin No. 2, 1940. Pp. vi+130.  
Provides the official statistics covering the whole range of higher education in this country, with a considerable amount of comparative data from previous years and valuable interpretative comment.

585. BOYD, ELIZABETH N. *A Diagnostic Study of Students' Difficulties in General Mathematics in First Year College Work*. Teachers College Contributions to Education, No. 798. New York: Teachers College, Columbia University, 1940. Pp. 152.  
Analyzes the frequency of all types of difficulty and finds that the most frequent cause of failure in mathematics is inability to read and understand the problem. Concludes with some valuable suggestions for teachers of mathematics.

586. BRANSCOMB, HARVIE. *Teaching with Books*. Chicago: American Library Association, 1940. Pp. xviii+240.  
Reports a study, made for the Association of American Colleges, of "the college library from the standpoint of its educational effectiveness," based chiefly on the synthesis, evaluation, and interpretation of data in previously published investigations.

587. BUTLER, NICHOLAS MURRAY. *Across the Busy Years: Recollections and Reflections*, Vol. I, pp. 452, 1939 (revised); Vol. II, pp. x+474, 1940 (revised). New York: Charles Scribner's Sons.  
Presents the autobiography of this American educator, with special reference both to his constructive work in shaping the development of higher education and to his connection with national politics.

588. BYRNE, CHARLES DAVID. *Co-ordinated Control of Higher Education in Oregon*. Stanford University, California: Stanford University Press, 1940. Pp. xiv+150.  
Reviews the progress made between 1932 and 1937 in the reorganization of the Oregon system of higher education, showing that duplication between state-supported institutions has been reduced, the offerings available to students increased, and the costs of educational services lowered.

589. CHAMBERS, M. M. "Higher Education and the Courts in 1939-40," *Educational Record*, XXII (January, 1941), 80-109.  
Continues the annual review of court decisions affecting higher education and indicates the continuance of two noteworthy tendencies: "(1) solicitude of the courts for the validity and execution of educational trusts in accordance with the broad purposes of the donor; and (2) fresh scrutiny of exemptions from state and federal taxation."

590. CHARTERS, W. W. "Sizing Up the Faculty," *Journal of Higher Education*, XI (December, 1940), 457-61.  
Summarizes the results of a nation-wide survey of 115 colleges, universities, and teachers' colleges, dealing with plans for evaluating faculty members. Concludes that very little work is being done along this line.

591. CHEN, THEODORE HSI-EN. *Developing Patterns of the College Curriculum in the United States*. University of Southern California Education Monographs, No. 10. Los Angeles, California: University of Southern California Press, 1940. Pp. xii+154.  
Classifies the extensive array of curriculum developments in American colleges and universities into a half-dozen types and describes the principal features of each type with reference to the institutions in which it is found.

592. COLE, LUELLA. *The Background for College Teaching*. New York: Farrar & Rinehart, Inc., 1940. Pp. xxiv+616.  
Presents a useful and exhaustive treatise on problems of instruction at the level of higher education. Of value to anyone who is, or who expects to become, a teacher at that level.

593. COLE, STEWART G. *Liberal Education in a Democracy*. New York: Harper & Bros., 1940. Pp. viii + 310.  
Treats the place and function of the college as it works out a program of liberal education consonant with the extended implications of personal liberty and social obligation in American democracy.

594. COULTER, JOHN G. *The Dean*. Lafayette, Indiana: Distributed by the Purdue Alumni Office (Memorial Union Building), 1940. Pp. 274.  
Presents the biography of a much-loved personality, Dean Stanley Coulter, who devoted almost two-score years to the service of a midwestern university.

595. DROUGHT, NEAL E. "Measuring Success in College of Students from Experimental High Schools," *School Review*, XLIX (May, 1941), 349-58.  
Describes the study of college success of students entering college in the Eight Year Study of the Progressive Education Association and enumerates two general conclusions, namely, (1) that students in these deviate high-school programs are not handicapped in their work and (2) that students graduating from the six schools judged by a competent staff to be the most experimental in the study are distinctly more successful in terms of criteria used.

596. DWYER, P. S., HORNER, CHARLOTTE, and YOAKUM, C. S. *A Statistical Summary of the Records of Students Entering the University of Michigan as Freshmen in the Decade, 1927-1936*. University of Michigan Administrative Studies, Vol. I, No. 4. Ann Arbor, Michigan: University of Michigan, 1940. Pp. iv + 226.  
Analyzes data concerning the records of university students, with apparently more concern for statistical techniques of analysis than for the implications of the findings for university policy.

597. ELLINGSON, MARK, and JARVIE, LAWRENCE L. "The Role of Consultants in Education," *Journal of Higher Education*, XII (February, 1941), 81-84.  
Presents a summary of the work of consultants and their services as used by institutions of higher learning during the past twelve years.

598. FICHTENBAUM, MAX. "Junior College Graduates vs. Senior College Juniors," *Journal of the American Association of Collegiate Registrars*, XVI (January, 1941), 144-54.  
Reports a comparison of the scholastic performance of 883 junior-college graduates in the University of Texas, who entered the University as Juniors, with a group who had done all their work at the University, and concludes that the junior-college graduates made a better quality performance despite the fact that they carried a heavier average load.

599. FORD, LEONARD A. "An Appraisal of Divisional Organization," *Association of American Colleges Bulletin*, XXVI (November, 1940), 447-49.  
Finds that the trend among small liberal-arts colleges is definitely away from the traditional departmental organization toward a group or divisional plan.

600. GEIGER, C. HARVE. *The Program of Higher Education of the Presbyterian Church in the United States of America*. Cedar Rapids, Iowa: Lawrence Press, 1940. Pp. viii+238.  
Traces, in a carefully prepared historical account, the development of higher education under Presbyterian auspices in this country.

601. GOLDSHORPE, J. HAROLD. "Trends in Philanthropy," *Journal of Higher Education*, XII (February, 1941), 73-80.  
Analyzes trends of philanthropic support of higher educational institutions since 1920 by summarizing gifts of selected group of institutions.

602. GREENLEAF, WALTER J. *Working Your Way through College and Other Means of Providing for College Expenses*. United States Office of Education, Vocational Division Bulletin No. 210, Occupational Information and Guidance Series No. 4, 1940. Pp. vi+176.  
Advises prospective students how they may plan for the financing of a college education; explains the various types of financial aids available, with particular stress on opportunities for employment; and lists specific sources of aid funds.

603. GRUSENDORF, A. A. "The Master's Thesis," *Journal of Higher Education*, XII (February, 1941), 85-88.  
Reports the status of the Master's thesis as a requirement for the Master's degree, as found in eighty-two graduate schools in the United States.

604. HESTER, H. I. *The Christian College*. Nashville, Tennessee: Sunday School Board of the Southern Baptist Convention, 1940. Pp. 160.  
Provides a textbook for the Baptist Young People's Union "Study Course on Denominational Life." Describes, with particular reference to the Baptist group, the place of the college in religious organization.

605. HILLBRAND, EARL K. "Faculty Leaves of Absence Caused by Illness," *School and Society*, LII (August 17, 1940), 108-10.  
Summarizes the regulations regarding leaves of absence caused by illness of faculty members in four institutions of higher learning in the United States.

606. HORTON, BYRNE J. *The Graduate School*. New York: Distributed by New York University Bookstore (18 Washington Place), 1940. Pp. 182.  
Outlines the origin and the development of the graduate school, critically evaluates procedures in the seminar, and discusses the problems of administering this unit of the American university.

607. JONES, AARON E. "Awarding Scholarships and Fellowships," *Journal of Higher Education*, XI (November, 1940), 427-30.  
Surveys and evaluates the administration of awards of scholarships and fellowships and presents sixteen criteria for such awards.

608. KELLY, FRED J., FRAZIER, BENJAMIN W., MCNEELY, JOHN H., and RATCLIFFE, ELLA B. *Collegiate Accreditation by Agencies within States*. United States Office of Education Bulletin No. 3, 1940. Pp. xii+220.

Reviews the historical development of accrediting agencies and the existing practices, and concludes with a proposal to transfer all accrediting powers to state agencies.

609. KELLY, FRED J., and RATCLIFFE, ELLA B. *Financial Aids for College Students*. United States Office of Education Bulletin No. 11, 1940. Pp. vi+36.  
Presents data gathered from 1,387 institutions by the National Youth Administration, showing by states the amount of each of the various types of financial assistance given college students from institutional sources.

610. KELLY, ROBERT LINCOLN. *The American Colleges and the Social Order*. New York: Macmillan Co., 1940. Pp. xii+380.  
Discusses the general historical development of the liberal-arts college in America and treats many of its modern problems—all in the well-known style of the emeritus executive of the Association of American Colleges.

611. KERR, FRED L. "A Ten-Year Study of Enrolments and Degrees," *Journal of the American Association of Collegiate Registrars*, XVI (October, 1940), 5-17.  
Surveys tendencies in college enrolment and the granting of degrees during a ten-year period, 1929-39; presents statistical summaries; and points out large gains in numbers of Masters' degrees granted.

612. KLEIN, A. J. (editor), in collaboration with committee chairmen: E. W. ANDERSON, R. H. ECKELBERRY, D. H. EIKENBERRY, H. G. HULLFISH, L. L. LOVE, D. OBERTEUFFER, S. L. PRESSEY, L. E. RATHS, and F. P. ROBINSON. *Adventures in the Reconstruction of Education*. Columbus, Ohio: College of Education, Ohio State University, 1941. Pp. viii+290.  
Describes the evolution of the activities and policies of the College of Education of the Ohio State University, with an evaluation of the program of teacher preparation and a forecast of future developments.

613. KLINEFELTER, C. F., and BATTIN, CHARLES T. *Social Leadership*. Washington: Vocational Division, United States Office of Education, 1940. Pp. 40.  
Describes a technique of instruction directed toward the objective of developing discussion leaders.

614. KUNKEL, B. W., and PRENTICE, D. B. "The Production of Graduates of Distinction by Undergraduate Liberal Arts Colleges and Technical Schools," *Association of American Colleges Bulletin*, XXVI (November, 1940), 389-403.  
Evaluates American colleges and technical schools on the basis of the production of graduates who attain the distinction of listing in *Who's Who in America*.

615. LLOYD-JONES, ESTHER. *Social Competence and College Students*. American Council on Education Studies, Series VI—Student Personnel Work,

Vol. IV, No. 3. Washington: American Council on Education, 1940. Pp. xiv+90.  
Explores the possibilities of organizing the facilities of higher institutions so as to provide consciously for the development of social competence in students.

616. LÖWE, ADOLF. *The Universities in Transformation*. Christian News-Letter Books, No. 9. London: Sheldon Press, 1940. Pp. viii+62.  
Comments on the reorganization of British universities from the point of view of adaptation to social needs.

617. *Louisiana State University and Agricultural and Mechanical College*. A Survey Report by a Commission of the American Council on Education. Washington: American Council on Education, 1940. Pp. 68.  
Presents the text of the report of the survey by Raymond Asa Kent, Samuel Paul Capen, Clarence Stephen Marsh, Frank LeRond McVey, Shelton Phelps, and Earl James McGrath.

618. LUDEMAN, W. W. "Effect of Housing on College Scholarship," *School and Society*, LII (September 28, 1940), 268-69.  
Compares the scholarship records of two groups of students, those living in college dormitories and those living outside a dormitory, and concludes that there appears "to be a strong argument for placing college students who are away from home in college dormitories."

619. McCABE, MARTHA R., and RATCLIFFE, ELLA B. (compilers). *Good References on Selection of Students in Higher Education*. United States Office of Education Bibliography No. 67. Washington: Government Printing Office, 1940. Pp. 16.  
Lists and annotates sixty references.

620. MACLEAN, MALCOLM S., THORNTON, JAMES W., and SPAFFORD, IVOL (editors). "Curriculum Making in the General College." Prepared by the Staff of the General College. Minneapolis, Minnesota: University of Minnesota, 1940. Pp. 275 (mimeographed).  
Recounts the experiences at the University of Minnesota in framing the curriculum for the General College, with special reference to the contribution of personnel research to this problem and with extended treatment of the peculiar problems of curriculum-building in both the orientation courses and the subject-centered areas.

621. MCNEELY, JOHN H. *Fiscal Control over State Higher Education*. United States Office of Education Bulletin No. 8, 1940. Pp. vi+50.  
Reports the findings of "a detailed inquiry into the reorganization of the governmental machinery for administering state financial affairs as it affects state higher education in each of the forty-eight states."

622. MARSHALL, ALPHEUS. "What Colleges Emphasize Consumer Problems?" *Journal of Higher Education*, XII (June, 1941), 311-17.  
Summarizes an investigation of the courses in consumer education offered in more than twelve hundred colleges and universities.

623. MEAD, J. F. "A Further Investigation of Transfer Relations with Senior Colleges," *Journal of the American Association of Collegiate Registrars*, XVI (October, 1940), 26-36.  
Presents results of a second survey to determine possibilities of transfer between senior colleges and universities and junior colleges, based on questionnaire replies from fifty-four college presidents, deans, and professors of education. Concludes that senior-college presidents, deans, and professors of education are more charitable in their attitude toward accepting transfer credit from junior colleges than are admission officers.

624. "Organization and Personnel Procedure of the —— Library—A Suggested Plan." Prepared by the Subcommittee on Schemes of Service of the American Library Association Board on Salaries, Staff, and Tenure. Chicago: American Library Association, 1940. Pp. v+36 (mimeographed).  
Presents a carefully drawn code of policies and procedures, applicable to both public libraries and college and university libraries, covering such matters as general organization, classification of positions, salary schedules, appointment procedures, service ratings, promotions, transfers, tenure, working conditions, welfare, economic security, opportunities for self-development, and staff relationships.

625. PATTON, LESLIE KARR. *The Purposes of Church-related Colleges*. Teachers College Contributions to Education, No. 783. New York: Teachers College, Columbia University, 1940. Pp. x+288.  
Analyzes statements of purposes found in college catalogues and suggests a somewhat subjectively developed program for reformulating statements of aims and objectives.

626. *Public Higher Education in Utah*. A Survey Report by a Commission of the American Council on Education. Washington: American Council on Education, 1940. Pp. 20.  
Reports the section of the survey of education in Utah which deals with the problems of higher education.

627. REMMERS, H. H. (editor). *Studies in Extracurricular Activities*, I. *Studies in Higher Education*, XXXIX. Lafayette, Indiana: Division of Educational Reference, Purdue University, 1940. Pp. 32.  
Reports two studies, one on women's extra-curriculum activities and the other on the effect of participation in extra-curriculum dramatics on scholastic achievement.

628. RIDER, FREMONT. "The Library as a Thermometer of Institutional Progress," *Association of American Colleges Bulletin*, XXVI (December, 1940), 566-69.  
Concludes, on the basis of figures of comparative growth of twenty American universities, ten American colleges, and five American women's colleges, that

college and university libraries have, on the whole, doubled in size every fifteen years and that there is a direct correlation between educational effectiveness of a college or university and the growth of its library.

629. ROBBINS, RAINARD B. *College Plans for Retirement Income*. New York: Columbia University Press, 1940. Pp. x+254.

Analyzes the faculty-retirement plans of more than six hundred colleges and universities and presents an authoritative treatment of the various features that should characterize the arrangements for retirement of faculty members.

630. RUSSELL, JOHN DALE (compiler and editor). *Student Personnel Services in Colleges and Universities*. Proceedings of the Institute for Administrative Officers of Higher Institutions, 1940, Vol. XII. Chicago: University of Chicago Press, 1941. Pp. x+300.

Brings together a series of twenty-two papers by well-known authorities on student-personnel services in higher institutions, dealing with such topics as the need for personnel services, the desirable administrative organization, provisions for understanding students, the interpretation and use of data in counseling, the extra-classroom life of students, and the evaluation of student personnel services.

631. SATTGAST, CHARLES R. *The Administration of College and University Endowments*. Teachers College Contributions to Education, No. 808. New York: Teachers College, Columbia University, 1940. Pp. vi+126.

Presents an intricate statistical analysis by means of which various policies and procedures in the management of institutional endowments are evaluated against two criteria relating to the income produced by the funds.

632. STEWART, JOHN Q. "The 'Gravitation,' or Geographical Drawing Power, of a College," *Bulletin of the American Association of University Professors*, XXVII (February, 1941), 70-75.

Develops a generalized formula showing that the size of the enrolment attracted to a college from any given area is directly proportional to the population of the area and inversely proportional to the distance of the area from the college.

633. *Studies in Engineering Education*. Studies in Higher Education, XXXVIII. Lafayette, Indiana: Division of Educational Reference, Purdue University, 1940. Pp. 36.

Reports four studies relating to (1) changes in quality of the preparation of Freshman engineering students over a ten-year period, (2) the prediction of success of engineering students, (3) a mathematics diagnostic-testing program, and (4) an experiment with a written recitation.

634. *Studies in Higher Education*. Biennial Report of the Committee on Educational Research, 1938-1940. Minneapolis, Minnesota: University of Minnesota, 1941. Pp. iv+200.

Reports twenty-one studies carried on by members of the staff of the University of Minnesota in such fields as personnel service, curriculum, instruction, prediction of academic success, and examinations.

635. WALTERS, RAYMOND. "Statistics of Registration in American Universities and Colleges, 1940," *School and Society*, LII (December 14, 1940), 601-19.  
Presents detailed statistics showing enrolment tendencies during 1940 in 647 American universities and colleges. Concludes that increases in enrolments amount to less than 1 per cent.

636. WARREN, CONSTANCE. *A New Design for Women's Education*. New York: Frederick A. Stokes Co., 1940. Pp. xiv+278.  
Develops in detail a plan of higher education for women based on the "needs" approach, illustrated chiefly from the program of Sarah Lawrence College.

637. WEITZEL, HENRY IRVING. *The Curriculum Classification of Junior College Students*. Pasadena, California: Bookstore, Pasadena Junior College, 1940. Pp. A8+88.  
Surveys the curriculums of junior colleges in general and proposes an organization for a comprehensive curriculum at this level along the lines adopted in the Pasadena Junior College.

638. WILKINS, ERNEST H. "The Professor Administrant," *Bulletin of the American Association of University Professors*, XXVII (February, 1941), 18-28.  
Explains the important concept of the college administrative officer as a faculty member with certain added, specialized duties.

## Educational Writings

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### REVIEWS AND BOOK NOTES

**RESPONSIBILITIES OF ELEMENTARY- AND SECONDARY-SCHOOL PRINCIPALS.**—Much has been written in the past three decades on the administration of public schools and the responsibilities of executive heads in them. Since the volume by Frank Pierrepont Graves (*The Administration of American Education with Special Reference to Personnel Factors*. New York: Macmillan Co., 1932), there has been published in this field no book with more clarity of meaning, wealth of illustration, and evidence of scientific knowledge and practices than this book by Jacobson and Reavis.<sup>1</sup> The volume is unique in that it covers, in an adequate manner and with proper differentiation, the duties of both elementary- and secondary-school principals.

The first four chapters are concerned with the organizing of the school for effective operation. The unmistakable responsibility of the school head as the leader in organizing for effective management and in planning the work of the school on a long-range basis is described. Excellent illustrations of effective devices for expediting and simplifying the mechanical tasks of the principal are pointed out. The illustrations of the conflict sheet on pages 93 and 95 are unusually clear and typify the kind of helpful aids with which the book abounds.

Chapters v through xi deal with the effective organization of a sound guidance program, the setting-up of an office organization that functions genuinely in carrying out the major responsibilities of a school toward its pupils, and an adequate student-activities program directed toward universal and effective participation on the part of all the school community. These chapters point out that leadership without planning and management leaves effort floundering. Without good management, co-operative effort breaks down. Numerous suggestions based on recent studies and research are given to show how school heads can best manage their institutions to obtain the maximum contribution of teachers toward the maximum good for pupils. Chapter xi, pointing out the newer and wider responsibility of school heads for achieving a rounded program in physical and mental health through participation and work experience by pupils, is especially applicable in the planning of the school program of today.

Chapters xii through xxiv deal with the organization and the administration of instruction; with the duties of the principal as a supervisor of instruction; with his noninstructional professional duties; and with his present and future

<sup>1</sup> Paul B. Jacobson and William C. Reavis, *Duties of School Principals*. New York: Prentice-Hall, Inc., 1941. Pp. xxiv+812. \$3.50.

place in the community. Any school administrator reading these chapters is convinced of the tremendous responsibility which is his. But he is not only stimulated; he is helped in carrying out his plans as a successful leader and manager by the description of successful practices elsewhere and by the enumeration of principles of good administration in each area of executive responsibility. The wide experience of the authors in school administration is constantly evident throughout the volume. Their ability to point out the differentiation in duties of elementary-school as contrasted with secondary-school principals without creating a hodgepodge of generalizations is amazing and is a testimonial to the clarity of their philosophy and their understanding of the nature of the principal's job.

The book gives every appearance of having been well planned and of having been written carefully and deliberately. The authors have capitalized not only on their wide experience but on recent research. Their ability to describe current practices without frequent quotations from studies or researches has resulted in a clear, running narrative throughout and is evidence of a fine ability to write. Their knowledge concerning duties of school principals is so extensive that the reader is constantly impressed with the ability of the authors to distinguish between important and unimportant materials. There are no extraneous words, yet at no point does the volume appear dull or unwieldy. Though the book is splendidly tied together, one can open it at any chapter and find it immediately readable and helpful. It represents a fine balance between theory and practice and is of immeasurable help, not only to the principal, but to the prospective teacher who hopes some day to become a principal. The book stands out in clarity, point of view, comprehensiveness, and balance as the finest volume in public-school administration read by this reviewer in the past two decades. It should be on the desk of every principal who looks on his job as challenging and changing, who wishes to keep his school and himself in line with the best modern practice in good school administration.

PAUL A. REHMUS

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A VIEW OF THE EMERGING SECONDARY SCHOOL.—Secondary education has been subjected to much criticism in recent years. The attacks have been made from all sides and on some very fundamental issues. Most of the criticisms point toward a demand for reorganization of the instructional program. A recent publication<sup>1</sup> will be worth-while reading for teachers and administrators wishing an overview of the job to be done and an understanding of the relation that the various features of the present school program bear to the curriculum. This book will also be useful to those who are unfamiliar with many of the late studies

<sup>1</sup> Harold Spears, *Secondary Education in American Life*. New York: American Book Co., 1941. Pp. xvi+400. \$2.50.

and other objective evidence pointing toward the need for improvement in secondary education.

Besides a brief introduction, the book comprises three major divisions. Part I reaches back into the historical background of the high school of today. The author opens this section with the title "The School Emerges from Its Past." Chapter ii, dealing with "An Investment in Democracy," includes an excellent discussion of the prevailing but dwindling conception of education for status. The three following chapters, "Secondary Education in Search of a Purpose," "The Curricular Ancestry of the Secondary School," and "The Democratization of Secondary Education," trace the curricular threads of the American secondary school back to their moorings in the early forms of the school. These chapters offer the reader an overview of the course traversed by the present-day high school.

Part II, entitled "Growing Concern for Individual and State," includes chapters on "The Current Curriculum Enterprise," "Prevailing Classroom Methods," "That Which Is Known as Extra-curricular," "Incorporating the Extra-curriculum," "Preparation for Citizenship," "The Student as an Individual," and "Life and Learning—in America." The first title offers the reader a perspective of the curriculum-revision movement. It starts with the conception of the curriculum as a fixed pattern of classroom offerings and ends with the conception of the curriculum as the total life of the school. The core curriculum, which seems to show promise, comes in for its share of discussion. Under the title "Prevailing Classroom Methods," the author presents the typical methods that are found in the classroom and points out the difficulty of distinguishing sharply between content and method. The next two chapters give evidence that the extra-curriculum is built up on the basis of pupil needs and interests and therefore merits consideration in the reorganization of instruction. The confidence generally placed in the social studies as a means of developing citizenship in a democracy is discussed in chapter x. The author, however, cites a weakness when he says, "The social-studies program has emphasized *knowledge* of rather than *practice in* history and government" (p. 200). The purposes, techniques, and future of the guidance movement are treated in chapter xi under the title "The Student as an Individual." The last chapter in Part II discusses the wanting influence of transfer of training, formal discipline, and the general acceptance of the organicistic over the atomistic point of view in learning or growth.

In Part III the author makes it clear that the success of curriculum reorganization will depend largely on the leadership of the principal. He reviews the historical development of the principalship in chapter xiv. In chapters xv and xvi he discusses the emerging conception of supervision. The book closes with a summary chapter in which the author specifies that "the number one purpose of the American public secondary school is to train for American democracy (p. 363) and that "the number two purpose of the secondary school—and not at all distinct from the first—is the education of each boy and girl of high-school age insofar as possible up to the limit of his capabilities" (p. 371).

The book is well organized and clearly written. The busy teacher or administrator who finds it impossible to keep abreast of modern secondary education in American life will find this book exceedingly valuable. Throughout the book the many references to evidence give the reader a feeling of thoroughness and authority. The reviewer was impressed with the author's arrangement of materials in Part I so as to interrelate the school's past and present features. All the suggestions in the book are practical and in line with current educational thought. The author's style of writing and clever use of cartoons contribute toward a uniqueness which makes this book easy and delightful to read.

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**BASIC FACTORS IN CONDUCT AND PERSONALITY.**—The process of adjustment in a problem-solving situation is very complex. It involves (1) a motivated person; (2) the goals which a person in a particular culture strives consciously or unconsciously to attain; (3) the barriers which thwart his desires or frustrate the person and induce in him emotional tensions; (4) the resulting trial-and-error attempts to attain the goals or to protect the frustrated person from the consequences of failure; and (5) the eventual discovery, not always conscious, of tension-easing responses which then frequently become relatively permanent personality characteristics. These basic components in adjustment to problem situations and certain other significant problems of conduct and personality are the topics of a new book<sup>1</sup> by Dr. Mandel Sherman. In it he presents both critical interpretations of selected literature on these problems and some new contributions as well.

The motives of human conduct "are the result of the social influences which elaborate or modify the original biological drives" (p. 69). Classification of motives, the author notes, is extremely difficult. He reviews those of McDougall, Dunlap, Shaffer, Freud, Thomas, Murray, and some others but, typical of the book, presents no synoptic or personal list. However, as representative of the strong socialized motives which activate behavior in our competitive society, he would probably accept the desires for security, for recognition, for social approval, for love and affection, and for mastery or achievement. Concerning the last named, he agrees with Adler "that the motivation to excel, to be superior, to master situations, is probably the result of conflicts regarding one's ability or achievement, with the resulting energizing of the drive to overcome the inadequacies" (p. 71).

Although no special chapter is devoted to human goals, the nature and variety of the barriers encountered in the efforts which most persons make to attain their goals are clearly revealed in a special chapter on "Conflicts." "The

<sup>1</sup> Mandel Sherman, *Basic Problems of Behavior*. New York: Longmans, Green & Co., 1941. Pp. viii+440. \$3.00.

basis of a conflict is a discrepancy between the individual's desires or drives and their attainment, or is the result of the clash of contradictory or incompatible desires or drives" (p. 280). Dr. Sherman is careful to discriminate between simple unsatisfied needs or desires and barriers which result in frustration and conflict. "Every person," he writes, "is thwarted to some extent and realizes that given desires cannot be attained. . . . conflicts arise only, however, when these frustrations are evaluated by the person either consciously or unconsciously as of great importance and as threatening his security and integrity" (p. 280). Frustration, which with motivation is treated in a special chapter, is defined "as emotional disorganization which results from interference with a systematized effort to solve a problem" (p. 88). The emotional disorganization "results not only because an obstacle has been introduced in a systematized goal-seeking effort but also because the individual interprets his failure in terms of a personal defect" (p. 106). The difference between the reactions to mere deprivation (to use the term recently suggested by Maslow) and frustration may be illustrated in a study cited by Sherman from the Chicago laboratory. Emotional indices of reaction to barriers (imposed failures in learning tasks) for a well-adjusted group and a neurotic group, for whom a persistent attitude of failure and frustration was characteristic, were compared. "Not only did the neurotic children react [emotionally] more quickly to frustration, but they also returned more slowly to the normal level" (p. 98).

To the nature of emotional behavior, which, we note, by definition characterizes every frustrating experience, Dr. Sherman devotes his first and longest chapter. "An emotion," he writes, "occurs primarily in a problem-solving situation when physical and intellectual adjustment fails" (p. 1). Basically, it is adaptive. "Active forward movement (aggression) and retreat are probably the elementary biological modes of response" (p. 12). The contents of this comprehensive, lucidly arranged chapter are fundamental in understanding the adjustment process.

What, then, are the common modes of reacting to problem situations? Confronted with a barrier, the person may, if the goal seems unattainable, accept the fact and turn to other interests. If it appears that, with continued and varied effort, the ability, knowledge, or skill necessary to attain the goal may be acquired, learning by trial-and-error may occur. In certain kinds of problems a person may attempt to achieve his goal by reasoning. However, if anticipated failure to attain the goal threatens the security and integrity of the person, other personality-protecting mechanisms are resorted to. Dr. Sherman has contributed a simplified, meaningful outline of these mechanisms. The common adjustment mechanisms are: (1) the compensatory method, (2) the escape mechanisms, and (3) the defense mechanisms. As components of these mechanisms, or perhaps sometimes independently of them, the person may also react to frustration (4) by aggression; (5) by withdrawal behavior; (6) by resorting to fantasy; (7) by developing unusual and peculiar symbolic displacements, substitutions, and disguises of elements in the problem; or (8) by acquiring symptoms of some

physical illness or disability. In another enlightening chapter Dr. Sherman shows the role of attitudes in adjusting to frustrations and conflicts.

Consistent with his general point of view, the author indicates how personality is both developed and revealed in problem situations. He writes: "It can be assumed further that personality is determined by the methods the individual utilizes in meeting or solving his conflicts. Therefore, a study of the origins of his conflicts and of his methods of meeting and solving them should give the investigator a picture of his personality patterns" (pp. 113-14). However, in the two chapters on "Theories of Personality" and "The Measurement of Personality," an attempt to be comprehensive has resulted in somewhat limited interpretations and evaluations of both the theories of, and the devices for, measuring personality. Too many theories are too briefly described and evaluated. Similarly with respect to devices for measuring personality, the author has briefly described and only superficially evaluated the interview, the case history, the life-history, methods of observation, play techniques, rating scales, association tests, a scale for measuring maturity of personality, and adjustment inventories (thirteen of which are mentioned). Especially in the case of adjustment inventories, insufficient consideration is given to the statistical data on their validity and reliability.

In the final three chapters of the book, in connection with critical reviews of the literature, the general concept of adjustment to frustrations is applied in understanding (1) delinquency, (2) the neuroses, and (3) mental abnormalities. The child, influenced by the patterns of behavior about him, may sometimes find in delinquent behavior "a way of resolving the emotional tensions resulting from the frustrations" (p. 315) imposed upon him by his environment.

Neurotic behavior results from the attempt to solve intense long-standing mental conflicts by one or more symptoms of some physical illness, anxiety, fear, or compulsive and obsessive behavior [p. 349].

No one has shown, however, that these factors [frustrations, traumas, failures] are causally related to the psychoses although . . . the symptoms may be determined in part by the individual's backgrounds and experiences [p. 411].

Except for such limitations as have been mentioned, which contrast with the critical tone of the book as a whole, the clinician and the student will find in this volume careful expositions and appraisals of the basic theories and practices currently employed in understanding and treating many conduct and personality problems. In discussing these problems, the author has drawn upon clinical, experimental, psychological, and psychiatric data both from an extensive literature and from his own rich clinical and research experiences.

ARDEN FRANDSEN

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**SOUND PROGRESSIVE EDUCATION.**—Probably the difficulty of the movie magnate who "knew what he wanted but couldn't spell it" has never been attributed to a regime of progressive education in his youth, but similar weaknesses in the educational outcomes of some "progressive" schools have been pointed out from many quarters. A recent exposition<sup>1</sup> of the four-year English curriculum in the University High School of the University of Chicago gives every evidence that participants in those courses would emerge at graduation with sound training in fundamentals and well-balanced development in the use of functional English in the four areas of the language arts: speaking, writing, reading, and listening.

The University High School, with an enrolment of about 275, is a four-year unit embracing Grades VII-X, inclusive. Ninety per cent of the graduates enter the University of Chicago. The authors of this monograph state that the "student body consists of a cross-section of young people from the homes of the upper middle class with no selective factors except those which naturally operate in a school with a tuition rate of three hundred dollars a year" (p. 2).

This book is *not* another course of study embalmed in a vacuum. In fact only a few units are presented *in toto*. The book is an important contribution to educational literature by reason of the care and foresight with which the description of the total educational pattern of the school is presented, with stress on the underlying principles and philosophy, which, in turn, determine the objectives, materials, organization, and methods of the English course.

Against this background are presented, in about thirty pages, the outline of the forty-seven units comprising the four-year course and a concise description of each unit. This compactness enables the reader to see certain cyclic features of the organization, such as the use of summer experiences and vacation reading at the beginning of each year and the yearly progress toward maturing speech habits. In addition to showing the articulation within the English curriculum itself, this section emphasizes the correlation of English with other subjects.

The eleven complete units of teaching material provided in the last two-thirds of the volume present as varied and as adequate a selection as probably could be made on an objective basis. Many readers, however, will find themselves wishing to see certain other units because of individual interests or situations peculiar to their own classrooms. The introduction of each unit explains its placement in the sequence and its special objectives and gives other comments pertinent to its use or its significance. Then follows a copy of the material provided for the pupils, including complete reading lists. The titles of these units are worth including for what they show of the range of material, although the titles themselves can give no notion of the richness and thoroughness of the treatment suggested by the material and methods described. Illustrative units

<sup>1</sup> Harold A. Anderson (chairman), Babette K. Lemon, Marguerite E. Schuler, and Edith E. Shepherd, *Instruction in English in the University High School*. Publications of the Laboratory Schools of the University of Chicago, No. 9. Chicago: Department of Education, University of Chicago, 1941. Pp. viii+216. \$1.75.

in language, grammar, and composition include "The Writing of Titles," "Conversation and Informal Group Discussion," "Writing Conversation," "The Making of Americans," "Modifiers in the Simple Sentence," and "Our Language." Illustrative units in literature are entitled "Ballads and Short Narrative Poems," "The American Pioneer in Literature," "A Study of Periodicals," "Reading and Writing Essays," and "Lyric Poetry."

The book leaves the reader with one major wish: that other schools with sound and interesting English curriculums would present as clear and valuable a picture of their work as have Mr. Anderson and his co-workers.

ELVA A. LYON

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ORGANIZING THE SOCIAL STUDIES.—Teachers of all subjects are today seeking to make worth-while contributions to the great end of education for democratic living. The social-studies teacher has a primary responsibility in this area; for his classes should provide pupils with opportunities to acquire the backgrounds, understandings, ideals, and attitudes without which democratic living will be a farce. Much thought has been given to the problem of effective organization of the materials with which the social-studies classes must deal. Teachers who seek aid in clarifying their thinking in this area will find a recent volume<sup>1</sup> a useful guide.

The authors indicate that their book is designed to help both prospective teachers and in-service teachers in understanding "the underlying theories and principles for organizing the social studies on the secondary-school level" (pp. v-vi). A subsequent statement declares that the purpose is "to present concretely various methods and plans of organizing the social studies and to offer suggestions that will aid pupils in developing a democratic way of life in the school as preparation for their responsibilities of adult democratic citizenship" (pp. 4-5).

Three chapters are devoted to a discussion of general problems: "The Curriculum," "The Importance of Guidance," and "Organizing the Materials of Instruction." Against this background the authors have proceeded to a detailed consideration of the courses commonly finding a place in the social-studies program, a special chapter being devoted to each course. Here they have given a brief historical account of the place of a particular subject in the curriculum, a presentation of usual methods of organizing that subject for teaching purposes, and useful suggestions which deviate from traditional practices. The three closing chapters are concerned with "Correlation and Fusion," "Some Recent Trends," and "Some New Plans." A summary concludes each chapter. In addition, there are questions, based largely on the text, and a convenient list of selected references from books and periodicals.

<sup>1</sup> Arthur C. Bining, Walter H. Mohr, and Richard H. McFeely, *Organizing the Social Studies in Secondary Schools*. New York: McGraw-Hill Book Co., Inc., 1941. Pp. xii+338. \$2.75.

More than half the pages of the book are given over to the consideration of the various subjects which constitute the social studies. Practical suggestions will make these chapters excellent aids for new teachers. While they recognize the need for modification of traditional methods of organization, the authors avoid enthusiastic indorsements of specific innovations which have not become fairly well established. They cite advantages and disadvantages of the various proposals considered but vigorously defend none as *the* answer to the problem.

The same careful restraint is exercised in the last three chapters. Various proposals which tend to break down subject-matter boundaries—correlation, fusion, the core curriculum, courses based on "areas of human activity," and the social-process approach—are treated in some detail. The authors warn against the extreme practices which may grow out of the current tendencies to ignore subject-matter lines: "Merely scrambling subjects does not guarantee an integrated educational experience" (p. 310).

In preparing this excellent survey of their subject, the authors have broken no new ground, but their work makes it possible for readers to see clearly the possibilities and the limitations of various methods of organizing the social studies. On this score it will merit the careful attention of teachers who are attempting to build effective programs.

In some respects the usefulness of the book might have been increased. For example, there is no reference to the possibilities of "source units," the construction of which is now being urged as an aid to teachers who need assistance in building new courses. Only scant attention is given to the courses which attempt careful community studies. There is too little emphasis on the difficulty of finding suitable materials for pupil use in courses which do not follow the lines indicated by textbooks. This problem is not solved by putting into the pupils' hands books and periodicals primarily intended for adults. The authors have indicated such materials as are now available, but they have not called attention to the urgent need for more extensive work on this problem. The recent emphasis on modern problems is subjected to criticism, although the authors seem to regard a "thorough understanding of present-day problems" as an imperative for secondary-school pupils (p. 14). If this be accepted as an objective for the social studies, the reviewer feels that the topic deserves further elaboration. This expansion has been partially given in the chapter entitled "Problems of American Democracy," but the issues involved are broader than those which can be indicated with reference to a single course.

One of the authors was also a co-author of an earlier volume on methods of teaching the social studies. A second edition<sup>1</sup> of this well-known textbook, originally published in 1935, has now appeared. The materials have been revised and brought up to date. Two new chapters have been added: "The Materials of Instruction" and "The School Library and the Social Studies." This volume is,

<sup>1</sup> Arthur C. Bining and David H. Bining, *Teaching the Social Studies in Secondary Schools*. New York: McGraw-Hill Book Co., Inc., 1941 (second edition). Pp. xiv+378. \$2.75.

like its companion work reviewed above, filled with excellent suggestions for practical teaching situations. Together these two books will provide social-studies teachers with useful references to consult on many occasions.

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### CURRENT PUBLICATIONS RECEIVED

#### GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BENT, RUDYARD K., and KRONENBERG, HENRY H. *Principles of Secondary Education*. New York: McGraw-Hill Book Co., Inc., 1941. Pp. xiv+594. \$3.00.

BUTLER, CHARLES H., and WREN, F. LYNWOOD. *The Teaching of Secondary Mathematics*. New York: McGraw-Hill Book Co., Inc., 1941. Pp. xii+514. \$3.00.

CHILD, ELEANOR D., and FINCH, HARDY R. *Producing School Movies: A Manual for Teachers and Students Interested in Producing Amateur Films*. Sponsored by the Committee on Standards for Motion Pictures and Newspapers of the National Council of Teachers of English. English Monograph No. 12. Chicago: National Council of Teachers of English (211 West Sixty-eighth Street), 1941. Pp. xii+152. \$1.50.

FAULK, HERBERT ARNOLD. *Corporal Punishment: A Social Interpretation of Its Theory and Practice in the Schools of the United States*. Teachers College Contributions to Education, No. 835. New York: Teachers College, Columbia University, 1941. Pp. 162. \$2.10.

GANS, ROMA. *Guiding Children's Reading through Experiences*. Practical Suggestions for Teaching, No. 3. New York: Teachers College, Columbia University, 1941. Pp. x+86. \$0.60.

GERMANE, CHARLES E., and GERMANE, EDITH G. *Personnel Work in High School: A Program for the Guidance of Youth—Educational, Social, and Vocational*. New York: Silver Burdett Co., 1941. Pp. xvi+600. \$4.00.

LANGTON, CLAIR V. *Orientation in School Health*. New York: Harper & Bros., 1941. Pp. xviii+680. \$3.00.

MCQUEEN, H. C., HARRIS, W. B., BOYES, G. H., GLASGOW, K. W. R., O'HALLORAN, K. H., and WOODS, N. S. *The Background of Guidance*. Educational Research Series, No. 16. Wellington: New Zealand Council for Educational Research, 1941. Pp. viii+128.

MARSHALL, G. H., MARSHALL, CLARA W., and CARPENTER, W. W. *The Administrator's Wife*. Boston: Christopher Publishing House, 1941. Pp. 122. \$1.50.

MILES, ARNOLD, and MARTIN, LOWELL. *Public Administration and the Library*. University of Chicago Studies in Library Science. Chicago: University of Chicago Press, 1941. Pp. xiv+314. \$3.00.

PANCOAST, OMAR, JR. *Occupational Mobility: Democratic Efficiency through the Use of Human Resources*. New York: Columbia University Press, 1941. Pp. viii+156. \$1.75.

*Roads to the Future*. Twenty-eighth Annual Schoolmen's Week Proceedings. Joint Meeting, Southeastern Convention District of the Pennsylvania State Education Association, March 26-29, 1941. University of Pennsylvania Bulletin, Vol. XLI, No. 35. Philadelphia: School of Education, University of Pennsylvania, 1941. Pp. vi+482.

SPADINO E. J. *Writing and Laterality Characteristics of Stuttering Children: A Comparative Study of Seventy Grade School Stutterers and Seventy Matched Non-stutterers*. Teachers College Contributions to Education, No. 837. New York: Teachers College, Columbia University, 1941. Pp. viii+82. \$1.60.

STREET, ROY F. *Children in a World of Conflict*. Boston: Christopher Publishing House, 1941. Pp. 304. \$2.50.

#### BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

DEWEY, H. E. *Unit Tests in the Social Studies*, pp. viii+96, \$0.48; *Answer List*, pp. 6, \$0.08. Yonkers-on-Hudson, New York: World Book Co., 1941.

HOWARD, LOWRY S. *The Road Ahead: A College Orientation and Guidance Book*. Edited and with introduction by Lewis M. Terman. Yonkers-on-Hudson, New York: World Book Co., 1941. Pp. xiv+402. \$2.00.

POPE, FRANCIS, and OTIS, ARTHUR S. *Elements of Aeronautics*. Yonkers-on-Hudson, New York: World Book Co., 1941. Pp. x+660. \$3.40.

READE, INEZ E. *Improve Your Accent*. New York: Macmillan Co., 1941. Pp. viii+54. \$0.48.

RUCH, FLOYD L., MACKENZIE, GORDON N., and McCLEAN, MARGARET. *People Are Important*. Chicago: Scott, Foresman & Co., 1941. Pp. xii+284. \$1.32.

VIOLETTE, HALLIE HALL, and DARBY, ADA CLAIRE. *On the Trail to Santa Fe*. Boston: Houghton Mifflin Co., 1941. Pp. 266. \$1.80.

*Words: Spelling, Pronunciation, Definition, and Application*. Compiled by Rupert P. SoRelle and Charles W. Kitt. New York: Gregg Publishing Co. (third edition revised by the Editorial Staff of the Gregg Publishing Co.), 1941. Pp. x+214. \$0.60.

#### PUBLICATIONS IN PAMPHLET FORM

*Abstracts of Masters' Theses in Education Approved by Kansas State College, 1915-1940*. Bulletin 1 of Alpha Delta Chapter of Phi Delta Kappa. Manhattan, Kansas: Alpha Delta Chapter of Phi Delta Kappa, Kansas State College, 1941. Pp. 130. \$0.50.

BREARLEY, H. C. *Southern Regional Materials in Social Science*. Made Available for Distribution by the Commission on Resources and Education and the

Commission on Curricular Problems and Research of the Southern Association of Colleges and Secondary Schools. Field Study No. 8. Nashville, Tennessee: Division of Surveys and Field Studies, George Peabody College for Teachers, 1941. Pp. 34.

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